CENTENARY YEAR
100
1866/1966

ROYAL VICTORIAN INSTITUTE FOR THE BLIND

557.ST. KILDA RD., PRAHRAN, S.1, VICTORIA, AUSTRALIA
TEL.: 51 1381. CABLES: "ROYALBLIND" MELBOURNE

PROCEEDINGS of the CENTENARY CONFERENCE

22 August - 25 August, 1966

Conference Theme:

THE EDUCATION AND MEDICAL CARE OF BLIND CHILDREN

HV1945
.E39
1966

With Compliments

ROYAL VICTORIAN INSTITUTE FOR THE BLIND

CENTENARY YEAR

100

1866/1966

6/2/67 Letter Request

Digitized by the Internet Archive
in 2016

https://archive.org/details/proceedingsofcen00unse

THE FIRST CENTURY

The Royal Victorian Institute for the Blind began on 21 August, 1866 and by the end of that year 19 blind children were in residence and under care.

Ever since 1866 a very important aspect of the Institute's services has been the Residential Nursery and School for Blind Babies and Children. Today there are usually about 70 children in residence.

To celebrate the first century it was decided to conduct a conference in the Institute's Ormond Hall, Moubray Street, Prahran.

Dr. Merle E. Frampton, Ph.D., LL.D., Litt.D., of New York, U.S.A. accepted the invitation of the Board of Management to visit Australia and to lead the Conference. Dr. Frampton is the Principal of the New York Institute for the Education of the Blind and his long experience and outstanding achievements in the field of education have fitted him admirably for the role of conference leadership.

The President of the Royal Victorian Institute for the Blind, Dr. Charles Bennett, presided over the Conference. At his invitation His Excellency the Governor of Victoria, Major General Sir Rohan Delacombe, K.C.M.G., K.B.E., C.B., D.S.O., K.St.J., performed the opening ceremony.

The Conference Chairman was the Executive Director of the Royal Victorian Institute for the Blind, Mr. Frank Y. Turley.

Attendances ranged from 200 to 400 and on the fourth day an inspection was made of the Residential Nursery and School at Burwood Road, Burwood.

The printed proceedings are presented with compliments, and further copies may be obtained on application.

Material contained in this booklet is intended for the benefit of blind children everywhere. Its use in other publications is subject to the approval of the individual contributors.

****

CONTENTS

Page

1. THE RESIDENTIAL SCHOOL FOR BLIND CHILDREN
F. C. Douglas

5. EXTRA-CURRICULAR ASPECTS OF TRAINING FOR LIVING
Mrs. E. Dunell

9. THE TRANSITION FROM PRIMARY TO SECONDARY EDUCATION
Cathryn R. McKenzie

13. THE ROLE OF RESEARCH IN DETERMINING THE CAUSE OF BLINDNESS IN INFANTS AND CHILDREN
Stanley Williams

15. LABORATORY ASPECTS OF RUBELLA INFECTION
Alan Ferris

17. EDUCATION AND THE EXCEPTIONAL CHILD
Merle E. Frampton

25. CURRENT TRENDS IN RESEARCH - WITH PARTICULAR REFERENCE TO THE EFFECTS OF ANTIBIOTICS
John H. Coldbeck

29. AUDITORY TESTING FOR THE VISUALLY HANDICAPPED CHILD
Gerald J. Little

31. RECENT DEVELOPMENTS IN VISUAL AIDS FOR THE VISUALLY HANDICAPPED CHILD
James B. Foster

37. THE GENERAL PRACTITIONER AND THE BLIND CHILD
G. R. O. Walpole

47. THE ROLE OF THE RESIDENTIAL SCHOOL
Merle E. Frampton

59. PROFESSIONAL OPPORTUNITIES FOR THE BLIND CHILD
N. R. Westh

67. EMPLOYMENT OPPORTUNITIES - THE BREAK THROUGH
E. J. Hanlon

71. THE FUTURE - IN THE FIELD OF EDUCATION OF BLIND CHILDREN
Merle E. Frampton

THE RESIDENTIAL SCHOOL FOR BLIND CHILDREN

Academic Aspects of Training for Living

F. C. Douglas *

"Training for living" is a total process involving numerous influences including school, home, society and other environmental factors. In order that this talk be confined sensibly to the title, the term "academic aspects" must be defined, and a convenient definition would emerge if the term "school" by synonomous with "academic" and the point made that "living" is not synonomous with "livelihood". Perhaps at this stage a re-statement is in order, to wit, "The school's influence on training for living".

I now feel free to talk as a teacher and not as an amateur philosopher, and as a teacher recently appointed to the Burwood School, my first interest was to understand how blind children communicate with the teacher and with the contemporaries. "Talking and listening" was the most obvious mode because it is so general in all curricula from craft, physical education, right through to the deadly end; listening to a teacher who has failed to prepare the work, and hence, is filling in time. Whenever I listen and at the same time, shut my eyes, I can quite conveniently go to sleep. I often wonder if an unobservant teacher is unaware that his, or her, blind students have merged into this happy state of release. I wonder also, how much thought has gone into planning a teaching situation for blind children, such as the reduction of reverberation, reduction of distracting sound - planning on the part of the architect, and selected, stimulating explanation, comment and question, planning on the part of the teacher. The blind child who must sit and listen without the association written word on the blackboard, or the associated expression, both facially and ambulatorily, is experiencing limited communication, with a related loss in learning potential. On the other side, however, is the increase in the skill of listening and selectivity in that which is being heard.

Towards an improvement in the training at the Burwood School, use is made of various electronic devices, such as the language laboratory and stereo, tape and record replay equipment. This equipment lends itself to programmed learning, a most important approach in any form of education, and so much more important when there is marked reduction in sensory perception such as blindness. Another important feature to a listener is that the speaker belongs to them or is speaking person to person and not speaking impersonally to a group. This modern electronic equipment, therefore, reduces the soporific content of the day's activity, the teaching is directed, is more personal and the listener's response and attitude more easily established, and so, more readily corrected.

Where much thought and effort are given to training a listener, surely a better capacity to listen is developed, and so becomes a compensatory factor in living for blind children.

Another facet of communication given emphasis is that of speech. Two goals are kept in mind here, one of general training, and the other, the correction of speech defects, is undertaken on a tutor basis in a room suitably draped and carpeted to give both tutor and student non-reverberatory, better quality acoustics, and also privacy - all most necessary conditions for this type of tuition.

---

* Mr. F. C. Douglas, D.F.C., B.Sc., T.P.T.C., is Headmaster of the Royal Victorian Institute for the Blind School.

Discussion for blind people must be of prime importance, and to some extent compensatory, so the manner of speech and general content need development. To this end, training is given in articulation, breathing and quality of sound. This alone is inadequate, so steps have been taken to fill-in on general knowledge by exposure to weekly talks on art, natural history, musical appreciation in particular, and as much related reference to topical points of interest in the classroom as possible.

These talks take the form of general discussion where the children, on running their hands over such things as alligators, lizards, owls, eagles, assorted native fruits, mineral ores, crystals, suitable art material from the art gallery, then, earnestly discussing these animals and objects with a child's typical healthy compromise between fact and imagination, are helped to develop an idea of what sighted students of Biology would accept as Ecology: i.e. the study of man and his environment. There is no attempt to teach formally or to evaluate the work, say, by testing. These acts may inhibit what should be considered as a broadening experience.

Another significant point in communication is the ability to write, or do Braille, or type, or do all three if possible. Many blind people cannot write at all, nor do those I know appear to feel this a disadvantage. I make this observation as a point of fact, I have no opinion as to whether this is good or bad. However, we do train partially blind children to write, and some of the totally blind students are trying with some success, to write their name with a guide frame. The students with some sight tend to be below standard in Braille, one of the reasons is that of rejection on the grounds that Braille is for blind people, and in any case, they read the Braille with their eyes, which misses the point somehow.

For the more academically successful, typing is most important for exams, essays, etc., and for all students, is invaluable socially for letter writing and recording.

At Primary level the content of the curriculum tends to parallel that of the non-handicapped child of the State Education Department. This is not in the best interests of all blind children, but rather for those expected to continue their education to senior secondary level and above. We are still victims of the popular idea that school is for the passing of exams, and there seems to be a fear that one or two children each year from this school, may be sent to their respective secondary day schools unable to compete, due to their lack of comparative background. It can be seen that the non-scholastic child has not been catered for very satisfactorily at secondary level at this stage, and consequently there is very little preparation and training in technical or agricultural skills (to name but two) for blind children in this State.

There appears to be much that could be developed for this type of child as there seems to be a trend towards the partially sighted multiply-handicapped child gaining in numbers relative to the intelligent blind child.

Both boys and girls would benefit a great deal from some training in animal husbandry, plant propagation, production of out of season fruits under controlled conditions. Who knows, but it may be an improvement on the "birds and bees approach" to sex education, one may get closer to the teaching of sex and still successfully avoid the real issue. Such training may fill two needs: that of developing a better general knowledge and then, it may open a door on livelihood later on or possibly a hobby. Closely allied to this form of education are such pursuits as pottery, gemology, lapidary, etc.

A good primary teacher with few children in the class can span the range of capabilities and adjust the work programme to suit, but tends to be inhibited by lack of follow-on at post primary level. By "follow'on" I mean the need for a teacher to be aware of successive curricular in order to prune-off irrelevant subject matter and so direct the childs' activities. Elsewhere in this talk I have referred to Braille, mobility, extra physical education, excursions, loss of school time here and there for medical/dental services, in all, a formidable addition to a child's working day if that child is not to develop a limited frame of reference but rather equate himself with typical children: i.e. children not already handicapped in terms of speed of learning nor limitations in daily experiences.

I feel there is a great need for revised subject material for blind children, and that they should not be taught as normal children who cannot see. Because of this the teachers are encouraged to undertake numerous excursions - plenty of "explore and discuss" OUTSIDE the classroom, and greater use of models, manipulative plastic ware, texture maps, embossed copy such as produced by the Thermoform. From such approaches it is hoped that the most suitable methods and media will emerge.

At secondary level there is evidence of a conflict of intention on the part of the students. They are undergoing the "Great Metamorphosis" from child to adult, and such problems as earning a livelihood, social compatability and sex must be confronted. And here-in lies a tremendous amount of scope for training and research.

The interesting and ever expanding venues for employment and increasing interest of employers, open up better vistas of training at Post Primary level. At Burwood, subjects such as French, Mathematics, General Sciences, and a more creative approach to craft in contrast to basket making and weaving, have found their way into the syllabus.

We have the interesting and stimulating situation where teen-agers are converting from the "what's the use" approach to school, towards a "I would like extra tutoring in Maths," or "Can we learn Esperanto as an extra in our own time?" In fact one lad, thought to be of below average ability, is rapidly overhauling others, and shows evidence of good technological potential favouring these "new" Maths and Science. Two teaching techniques that have helped bring this about are:-

1. That of individual experimentation in Science, whereby each student does the experiment in turn, in such a manner that there is no recourse to another student's notes or observations, i.e., with six students there will be six different experiments going concurrently, and the next session there will be a change over with, say, the length of the pendulum changed, or the masses and volumes changed for density experiments -

2. Extensive use of the Geometry Board for number work and Mathematics, where the board is of cellulose fibre, sufficiently processed to hold mapping pins under slight pressure from rubber bands. Measurement is achieved by the pasting on to the board of an embossed graticule of suitable scale for the task. This type of aid is in use throughout the school from telling the time for beginners, for tables and calculation through to studies of symmetry, shape, similarity, proving Pythagoras by square counting and so forth. Another advantage of this type of board is its cheapness and expendability.

At this stage in my talk, I have not made reference to the physical education programme. To the newcomer in the education of the blind children, there are some obvious physical characteristics that deserve consideration. The first, is posture, where there is notable over-compensation in the position of head, shoulders, pelvis and leg movement. This leg movement was aptly described by a keen observer as a hurried military-type, slow march. This characteristic walk seems not to appear in children where there is any helpful residual vision. However, work is undertaken at Burwood to attempt to rectify these posture difficulties. Long cane travel-training is given quite an important place on the time-table and this is followed up by physical training such as swimming (where permitted) weight training and other gymnastic exercises. Several pieces of corrective apparatus have appeared in the gymnasium, such as wall pulleys and abdominal boards, to further the physical training of the students.

I do not fully understand some of the mannerisms of the blind child oft referred to as "blindisms". There appear to be so many variables involved and conflicts of opinion which are no help to the newcomer, as to correction. Perhaps on mentioning the problem in such an experienced gathering, some helpful suggestions may emerge at discussion time. I will be an eager listener. My hope is that good physical training in combination with the desire of the child to overcome the mannerisms, will achieve good results. My conferees at the school and interstate, feel that the field of mobility, i.e. travel training and orientation, is so significant in the training for living of blind children, that the next biennial conference in January 1968, is to be devoted to this subject.

Finally, I would like to refer back to the term "Great Metamorphosis". I am obviously referring to adolescence and its related problems. The adolescent blind child has another adjustment to make at this stage, that is, to the social attitudes towards the blind. One may consider this a form of inverted training in that it is the public who must be educated to the needs of the young blind person. So, concumbant on all the aspects of training for living referred to previously we have a threefold problem or responsibility - the responsibility of the private home, of the child, of its school, and of the staff of the residential part of the school's activities. This responsibility is to equip the child to handle the errors and misunderstandings of the public sensibly and not to react badly and so negate all by a withdrawal or defeatist attitude.

It can be seen that training for living for a blind child is an immense task for the child, and your presence here today demonstrates a very active awareness of this task. I trust that my comments will tempt you to suggestions and questions and so give the conference the success it deserves.

EXTRA-CURRICULA ASPECTS OF TRAINING FOR LIVING

E. Dunell *

When I was asked to speak on extra curricula activities at our Residential Nursery and School at Burwood, I wondered just how our thinking today compared with 100 years ago.

In a very early Annual Report I found this paragraph: "The object is one which commends itself to the sympathy of all classes and will doubtless secure the cordial co-operation of all who desire to raise the indigent blind from the ignorance, degredation and pauperism, which, if left to themselves, must be their sad condition, and to make them intelligent, industrious, religious, useful happy members of society, so they are least in part be able to maintain themselves, take their place, however humble in the great hive of human industry and instead of being burdens to the community become contributors to its wealth and prosperity".

What is the real aim of extra curricula activities? I believe our aim is to help our children become as self reliant and independant as they are mentally and physically capable of, being, so that, by the time the children leave school, they are equipped to take their rightful place in society. If the children are equipped to do this they will continue to grow mentally and emotionally and will feel useful members of society.

It does not matter who or what it is that motivates the children, but no amount of patient instruction helps unless motivation comes from within the children themselves. It is so easy to believe you have helped the children, when in fact you have only guided them. People who work with blind children must never forget the fact that it is the children themselves who have to overcome all difficulties and achieve success.

When do extra curricula activities begin? At school age? I believe training ourselves for living begins when we are born. If we observe a baby, its eyes are following its Mother or other people and it becomes apparent the baby learns much by visual observation. What of the blind child? Sight is denied, so parents and staff have a responsibility to bring as much as possible to the notice of the child. How is this achieved? If we only use verbal description, then the child must rely on our interpretation and as each individual sees things differently, this means of learning is not always satisfactory. Since sight is denied it is important that the child, as much as possible, is given real objects to examine. By this method the child explores for itself through touch, hearing and smell. The child then knows exactly how be can identify particular objects.

---

* Mrs. E. Dunell, S.R.N. (Triple Certificate), Diploma of Nursing Administration, College of Nursing Australia, F.C.N.A., is Matron of the Royal Victorian Institute for the Blind.

At our Residential Nursery and School in Burwood, we have 72 children whose ages range from 3 - 16 years but some children remain with us till they are 17 years of age or more. Each child must be legally blind before he is considered for admission. Our Honorary Oculist determines whether or not a child is legally blind. Our Consultant Paidetrician determines if a child is physically fit and an Ear Specialist tests the child's hearing. These three reports are sent to the Honorary Medical Officer who makes recommendations to the Board of Management as to acceptance.

There are many factors to be considered before a child is admitted at 3 years of age. Is the mother able to give the little child adequate information? Is the child beginning to be independent? Is the child bored because he has not enough to occupy him?

If parents seek help with day to day problems all efforts are made to assist. Home visits are made anywhere in Victoria if parents request help. Before children are accepted here, the mothers are encouraged to spend the first morning at the School with the children and also to visit them at regular intervals; country mothers are invited to spend the first week at the School with the children. This not only helps the children, parents and staff but when the final break from their own home comes, it is not quite so hard for the children.

What about homesick children? There is no doubt about the fact that some children, until they are about 7 or 8, have periods of being homesick. Children under 5 years spend one week or more at home during each term. This is especially necessary for country children who find the 12 to 13 weeks term rather long. The city children do not have the same problem, as they are able to go home at the weekend. The older country children too, during their 1st, 2nd and 3rd years at School, sometimes need to go home for a week's break during the term as they too become homesick and find it difficult to concentrate and the week's schooling that they miss is more than made up for, after they have had a break in their own homes.

Parents are encouraged to write to their children at least once a week, and parents of country children are encouraged to telephone each week as well as write to them. Country children also write home to the parents each week. All this helps to keep the children in contact with their own home and family.

In our Nursery, a programme similar to a Kindergarten is followed. The accent is on social training, self reliance and independence as well as Kindergarten activities. Experienced Mothercraft Nurses are used in this situation. The aim is to have the children ready to go to school at about 5 years of age. Wherever possible real articles instead of models are used for purposes of identification. Visits are made to places of interest. Close contact is kept with the mothers, and as far as possible the same methods of instruction are followed, thus ensuring as little confusion as possible for the children and so the mothers learn just how independent the children are becoming.

Our aim is to teach skills which develop independence, and interests which will be of value not only during the children's school years but most important of all, throughout the rest of their lives.

It is much easier to help the children personally rather than to encourage the children to help themselves and it is vital to resist this temptation. We must remember that compassion or whatever other humanitarian motive moves a parent, or friend to help blind children can hinder and annoy when the children become adults. From the children's point of view it may be easy to accept help but as they grow older they become more and more frustrated if they have not reached the level of independence of which they are capable.

The encouragement of independence takes a lot of time and much patience on everybody's part especially the children's, in order to learn to do up and undo shoe laces, make their beds, dress and undress, do up buttons, spread butter, jam and honey on bread, also to cut up their food and eat with a knife and fork. These are some of the essential skills which the children must learn if they wish to become independent. The situation must be watched carefully and the staff must know when to help and when to stand back and encourage. Some people are tidy by nature, others, like myself, are not so tidy. We must train each child to have a place for everything and return the article to its place after use. If this is not done when the children become adults they will always be dependent upon somebody else for every small detail and we will have failed in our duty. So at a very early age it is vital that the children are steered and guided towards self reliance and independence.

Our early reports show evidence that boys made baskets and girls knitted every spare moment they had and the proceeds provided funds for the R.V.I.B. What do our children do with their spare time today? Since we moved to Burwood 6 years ago the facilities at our school are providing an ever expanding horizon.

Most girls by choice belong to the Brownies and Guides. Three older girls who have some useful vision go to a sighted troop in the area but the others meet at the School. Most boys by choice belong to the Cubs and Scouts. The Guide and Scout troops are at present very active and keen. They go for day hikes and weekend camps. One scouting story will go down in history. At one camp 2 boys were detailed to do the cooking whilst the other boys were out hiking. One of the budding but reluctant cooks dropped his boot into the stew. He quickly pulled it out and kept quiet. When the hungry boys returned and had eaten and enjoyed the meal, he told them the story with great relish. One boy with a weak stomach said he felt sick and he had wondered why his stew had gravel in it.

Senior scouting activities include water skiing and canoeing. These activities are very popular. Two years ago one boy obtained his Queen's Scout badge and by the end of this year we hope to have two -1st Class Scouts. These activities are very popular and full credit goes to the Scout Masters who go to a great deal of trouble to organize different experiences.

The boys have a model train room. It is the dream child of the gentleman who runs the club. The room is set up with a complicated system similar to an actual railway system and, as well as having fun, the boys learn how trains really operate. Sometimes the instructor takes one or two boys on a train excursion. It may be a day trip or maybe a night excursion which includes watching trains. Full credit to our enthusiastic train instructor.

We have installed a ham radio. This is in the charge of a qualified operator. The club meets monthly and I hope, as this is a new venture, my successor at our next centenary celebrations will be able to assess the value to the children. I believe that for some children this will be a very real experience. They will be able to speak with people all over the world and so their horizons will become wider.

In Domestic Arts the aim is to teach each girl the basic elements of running a home, for example, cooking, simple sewing, washing, ironing and cleaning. Cooking is well organised. Each girl is taught to prepare, cook and serve a meal. When a girl is considered proficient we leave her on her own. If she burns the carrots the first time, she takes care not to repeat the performance, because she knows how hard it is to clean a burnt saucepan.

We used to teach girls to make pastry and cakes but today packet pastry and cake mixes are used. This is because when a girl does go shopping these things are readily available. By the time a girl leaves us she will know how to cook any meal, cakes or scones.

We have found boys are not interested in cooking, so we aim only for each boy to be able to make a cup of tea, cook a piece of toast or an egg or a grill.

Girls are taught to knit, simple sewing if they show interest, weaving and how to launder clothes. Boys are taught how to sew on a button. We find the younger children are when once they begin the more interest they show. Some children are interested in different kinds of craft, so we have a room available and they are able to use their leisure time to develop hobbies.

We have a tandem bicycle which is popular and recently we introduced two-wheeled bicycles as well as some small bicycles with trainer wheels. This method of transport is very popular and we find the children gain confidence from this experience.

Roller skating and Skate board are very popular. This also develops much confidence and of course produces fun when a staff member is invited to participate because she usually finds she is certainly not as proficient as the children. One staff member was told by a 15 year old boy that he really thought she was too old to try as these experiences were much better when one was young.

Cricket is very popular during the summer months. Some boys play against other blind cricketers each Saturday. The matches are held away from the School and this enables the boys to make new friends. Football is popular during the winter although it is not as easy for our children to play as cricket, for the football often finishes up on a roof. So far the windows have remained intact.

The heated swimming pool is used each night after school. Some of the children are excellent swimmers and one night a week a voluntary coach gives them extra tuition. Swish - a modified version of table tennis - is played all the year round. Card games are also taught, such as Euchre and 500.

Small girls learn ballet, older children are taught ballroom dancing. Older girls are instructed in deportment and how to apply make up.

We have kennel space for six pet dogs. We started with one dog but this was not a great success. So three children who stop in at week-ends were approached and asked if they would like a pup. If this proves a success we will extend and have six dogs belonging to six children. If they wish they will be able to take their dog home during holiday periods. I personally hope one day to have a series of pets of all kinds. Horse riding is next on our agenda. Several children will be instructed in the art of horsemanship.

A mobility instructress is employed to teach the children how to travel and how to shop etc. It is difficult to put into words how much it means for children to be able to go home by themselves or to go shopping by themselves. I have seen a marked change in our children since they have had mobility lessons. Just to be able to go out on their own when inside they feel frustrated by circumstances, can help the children to maintain a sense of balance and proportion.

What of the future? More and more opportunities will be created for the children to participate in community activities and entertainment for example film going, clubs and attending football matches and other functions.

During the last six years I have observed some of the children from our school become much more self reliant and independent and I sincerely hope the next six years will show an even greater surge of interests which will remain with the children right throughout their lives.

THE TRANSITION FROM PRIMARY TO SECONDARY EDUCATION

Cathryn R. McKenzie *

I am very honoured to be able to speak today on the transition for the handicapped student from Primary to Secondary education. Throughout this speech, I will not only speak of the transition in general terms, but I will draw on my own experiences.

It is obvious that there is a definite point of transition when a student (with sight or without it) reaches the end of Sixth grade and the beginning of Form 1. This transition is indefinable but nevertheless existent - a sort of "shadow line", through which the student must pass.

Most sighted students are aware of this change, as it generally involves a change of School, increased difficulty of work, the beginning of home work, beginning a second language, the serious beginning of examinations, which involve a test of mental capabilities to withstand pressure and strain and concentration. For the handicapped student, there will be either a great change with many problems, or no apparent change at all. Like the sighted pupil, the Blind child must accept more responsibility at the beginning of secondary education. The mental capacity of some is such that they cannot cope with the added responsibility and so never progress any further than a limited education, but this is not true of all Blind students. In other cases, the case of a partially sighted child at the School at Burwood is an example, there seems to be a mental blockage which does not allow the child to progress farther than Primary School. In some mysterious way, this mental blockage often clears, enabling the child to progress rapidly from primary to secondary education.

In the past, the progress of the Blind student beginning secondary education was hampered by the lack of Braille textbooks. Until secondary education commences, textbooks are neither used nor needed very extensively. However, when one reaches secondary standard, textbooks become vital. Formerly, due to the time taken to transcribe books into Braille, there were not enough textbooks for all Blind students, but this situation is being remedied, as the volume of Braille textbooks increases.

At this stage of his life, a Blind child is often at the beginning of adolescence - that awkward period in which many problems manifest themselves. As his mind expands and he discards the happy, carefree attitude of early infancy, the handicapped child begins to realise just what his particular handicap really means. For instance, the Blind child will realise that he cannot run and jump and play in the same manner that other sighted children of his own age can. This realisation can make the child unhappy, fretful and bitter. However, with careful attention on the part of parents and teachers, the handicapped child soon learns to live with his handicap, and this problem is usually a transient one. In the case of the Blind, Deaf or Spastic child, the American Psychiatrist Dr. Murray Banks' words are particularly appropriate: "Have you discovered how to live with yourself? If you know how to live well with yourself, then you will live harmoniously with others."

---

* Miss Cathryn McKenzie who has been totally blind from birth is now aged 16 years. She attended the R.V.I.B. School from 1953 to 1963 when she won a Scholarship in open competition to Camberwell Girls' Grammar School. Her achievements in academics and music have been outstanding and include sharing first prize in the Alliance Francaise Competition conducted through Victoria.

In my case, as in the case of many other pupils at Burwood who have gone beyond primary level, there was really no shadow line with its many problems, although there was a transition as regards the difficulty of work, beginning of homework, a second language, examinations, etc. I believe that this was because of the method of teaching employed at the R.V.I.A. (that is, the Royal Victorian Institute for the Blind) at Burwood. There were no problems of changing Schools, and the change in the standard of work was made as easily and as smoothly as possible.

Though it occurred two years after I had begun my secondary education, the change that I regard as the transition period of which I have been speaking, took place when I left the School at Burwood for the all sighted school of Camberwell Church of England Girls Grammar. Though the change of Schools was between second and third forms in my life, I regard it as the type of primary - secondary transition which sighted students would experience. I was going from a community where I was only one of a number of handicapped people, a protected community with a minority of people with sight, to a School where I was the only handicapped student. You will see how tremendous this change was, and naturally, I was a little apprehensive as to how the girls and teachers would react to me.

The thing that assured my integration at Camberwell was the coincidence of the change in Schools and my training in the Long Cane method of Mobility for Blind people. As an exercise in the use of the cane, I was taken, once every week in the last term at my old School, to Camberwell Grammar, where I was orientated to my new surroundings, and taught the positions of all the rooms to which I would have to go during the next year. These weekly visits to Camberwell not only helped me, but they gave the teachers and girls time to get used to me, so that when I actually started at my new School there was no synesss or hesitation on their part, and no reticence on mine. This, I feel, was a most excellent idea and I would recommend it to anybody who wishes to send their handicapped child to a sighted School.

There are two other reasons for my successful integration at Camberwell. The first, is the attitude of my parents. It will be realised that the parents of a handicapped child must do much more work than those of a sighted child. It will also be realised that the attitude of the parents has a great influence on the attitude of the child. My parents have been wonderfully co-operative and willing to do anything that will help my in my studies. The second reason is the teaching that I received at Burwood, from Mr. Westh in particular, who will be speaking later at this Conference. He it was who taught me to work by myself to a large extent, so that I have not found difficulty with the large amount of homework and note writing, which the pupils must do themselves at my new School.

Another problem with which I have to cope was the huge increase in the size of the classes at Camberwell. Whereas a class at Burwood would consist of a maximum of 10 pupils, classes of up to 50 pupils were common at Camberwell. My own class this year consists of 38 pupils. Here again, I benefited by the ability to work by myself, as the concentrated tuition of individuals which has been available at Burwood was naturally not available at Camberwell.

Though I have said that my Long Cane expeditions to Camberwell gave the girls and teachers a chance to become accustomed to me, I did not think that both girls and teachers would accept me and treat me as normally as they did; and for this I am extremely grateful. Not only have the teachers accepted me, but they have been very co-operative and helpful. An outstanding example of this willingness to help is my Mathematics teacher.

Formerly, it was considered impossible for a Blind person to be able to attempt all of the mathematics syllabus. When Blind people were taught maths., the parts of the syllabus like graphs and geometry which were considered too difficult to learn, were omitted.

Until I went to Camberwell, I had learnt Algebra, but had done no graph work or geometry. My new Mathematics teacher felt that it would be a good idea for me to attempt the entire Form 111 Mathematic syllabus, both to give me a sense of achievement and for mental stimulation. She drew the necessary geometrical diagrams backwards on sheets of tinfoil, so that when the sheets were reversed, the diagrams appeared in the right focus. My own diagrams were drawn with the aid of the "Sewell Braille Drawing Kit"; and my graphs were drawn on a special graph board which was imported from England by the R.V.I.B. and given to me on permanent loan for as long as I should need it.

With the help of all this special equipment, plus the work and co-operation of my mathematics teacher, I will be able to continue maths. until the end of my Matriculation year.

Though I cannot speak with as much authority on the experiences of other Blind and Partially sighted students at other Schools, I can say that their experiences have been much the same as mine. One Blind boy, Peter Richards, went from Burwood to Burwood High School to do his Leaving Certificate. Needless to say, he has found it a little more difficult to adjust, as he had not only to get used to a sighted School, but, in the midst of this, had to do a very important Certificate, marking a major milestone in any pupil's scholastic career. I, on the other hand, went to Camberwell in 3rd Form which gave me one year to adjust to my new School, before doing my Intermediate Certificate. However, Peter has settled well into his new School, has completed his Leaving year and passed his Leaving Certificate successfully; and is now studying for Matriculation.

The problem of the partially sighted pupil who goes to a fully sighted School is different and much more difficult. The partially sighted child has not enough sight to read textbooks in standard print, but has too much sight to rely entirely on Blind people's methods of reading and writing, like Braille books and the Perkins Braille Writer. This intermediate position between the Blind and sighted worlds can be very disheartening and frustrating for a child.

For all these children, including myself, although there was really no transition between primary and secondary School, the transition with the same kind of problems and significance in our lives came at a later date; when we transferred to a different School, and became more independent as a result. This is no reflection on the School at Burwood, which taught us how to become independent - but the real test of independence came when we stepped into the sighted world.

As I have said, the problems of this transition period are transient - but if they are yielded to or treated the wrong way, they become lasting.

My philosophy concerning this transition period and its problems, and, though they express it differently, the philosophy of most other Blind children trying to overcome their problems and to be a success in life - our aim and goal is expressed very aptly in Tennyson's plea: "To strive, to seek, to find, and not to yield."

THE ROLE OF RESEARCH IN DETERMINING THE CAUSE OF BLINDNESS IN INFANTS AND CHILDREN

Stanley Williams *

Laboratory Research

The most exciting event in clinical paediatric medicine in the last two years has been the further elaboration of abnormalities in new born babies caused by the rubella virus when the mother is infected in the first three months of pregnancy. This advanced knowledge has come through the development of laboratory methods which have enabled us to know in greater detail than formerly the distribution of the virus infection.

We are fortunate in Australia of being in the fore front of many aspects of viral research, including early work on rubella. Under the direction of Sir Macfarlane Burnet it was Dr. Gray Anderson of the Walter and Eliza Hall institute who first inoculated live virus to volunteers at Fairfield Hospital in Melbourne over ten years ago.

Credit for the isolation of rubella virus goes to American workers and following their lead rubella virus isolation has also been carried out at several laboratories in Australia and you will be hearing from Dr. Alan Ferris, Director of the Epidemicological Laboratory at Fairfield Hospital on the current position in that field and how some cases of blindness can be prevented by this knowledge.

Dr. John Coldbeck will show you how rubella is still one of the most common causes of eye defects in babies. The rubella virus is also a common cause of other abnormalities called embryopathies, in infants.

Another viral infection not so completely understood is that caused by the cytomegalic virus, which can be a cause of eye defects. The laboratory information which has helped us in this direction comes from Mr. Ian Jack at the Royal Children's Hospital, Melbourne.

Clinical Research

For the clinical research emerges from the detailed methods of history taking, physical examination and observation, and collating this with the opinion of consultants in various fields of medicine. The history taking includes a retrospective study not only of the infant and the pregnancy but also of the family. The family or hereditary causes of blindness are well known. It is unlikely any preventive measures short of marriage counselling can influence them. The most contributory information in clinical research was the observation and elaboration of the association of cataract with the epidemic of rubella in 1941 by Sir Norman Gregg. We are contributing in this field by the use of all the clinical methods mentioned including radiological, biochemical and bacteriological investigations.

---

* Dr. Stanley Williams, M.D., F.R.A.C.P., is Consultant Physician to the Royal Victorian Institute for the Blind.

A conference such as this encourages a clarification of ones views on these subjects and also enables consultation between people interested. In this field of blindness in infants and children discussion between the consultants has been helpful in obtaining progress in prevention.

LABORATORY ASPECTS OF RUBELLA INFECTION

Alan Ferris *

Better treatment of, and prophylaxis against, rubella embryopathics can only stem from a better understanding of the congenital rubella syndrome itself. The chief aim in this paper will be to mention the quite new advances which have been made in our knowledge of the virological and immunological aspects of rubella in the new born babe, and to illustrate how these have helped to illuminate clinical problems.

Awareness of the rubella problem came in the years 1941 and 1943 following pioneering Australian work by Gregg and later by Swan. In succeeding twenty years progress was made but its tempo was slow. This was all changed in 1962 when two independent groups of workers in America reported, each using different means, isolation of rubella virus for the first time. Confirmation of this discovery from all over the world soon followed. It was perhaps fortunate in many ways that an unusually big epidemic of rubella swept America during 1963-64 because this provided a wealth of raw material upon which new virological tools could be tried, and the yield in knowledge which followed was great.

Brief discussion will mention the "expanded rubella syndrome", the virological diagnosis of rubella in adults and in new born babes, some of the immunological aspects of infection and the possibilities of protection by gamma globulin and by vaccine.

---

* Dr. Alan Ferris, F.R.A.C.P., is Director of the Epidemiological Research Institute, Fairfield Hospital, Victoria.

EDUCATION AND THE EXCEPTIONAL CHILD

The Education of the Blind in Preparation for Life.

Merle E. Frampton *

This subject demands at the outset specific definition and first, one should know what is meant by education. I am going to answer that question with a statement from Montaigne.

> "The evil comes of the foolish way in which our "instructors" set to work, and on the plan on which we are taught, no wonder if neither scholars nor masters become more able, whatever they may do in becoming more learned. In truth the trouble and expense of our fathers are directed only to furnish our heads with knowledge, not a word of judgment or virtue. Cry out to our people about a passer-by, "There's a learned man!" and about another, "There's a good man!" They will be all agog after the learned man, and will not look at the good man. One might fairly raise a third cry, "There's a set of num-skulls!" We are ready enough to ask, "Does he know Greek or Latin?" "Does he write verse or write prose?" But whether he has become wiser or better or more useful should be the first question, and that is always the last. We ought to find out, not who knows most but who knows best. (De Pe'dantisme a page or two beyond Odi homines)

Our concept of education of the visually handicapped exceptional child should be a concept, at least, similar to this concept if we are to adequately prepare the visually handicapped for life which is implied in the topic of this paper. This should be the specific aim of the educational program for the visually handicapped and exception in preparation for life.

I do not have, nor do I think you would be vitally interested in the history of the many heroic attempts to develop an educational program for the preparation of the visually handicapped for life. The idea is not new and some educators of the blind, in decades long since past, have come much closer with their programs to the achievement of this goal than many so-called modern progressive educational programs for the training of the visually handicapped.

I shall spend my time here in pointing out the main problems of educating the visually handicapped and exceptional in preparation for life.

---

* Dr. Merle E. Frampton, Ph.D., LL.D., Litt.D., is Chief Executive of the New York Institute for the Education of the Blind and Professor of Education, Hunter College in the City of New York, U.S.A.

The first consideration is the chronological span of the educational career. For the sake of discussion, four general periods are to be marked out.

1. Home and pre-school period.
2. Elementary school period.
3. Secondary (high school) period.
4. Post-High School (College, Evening-Extension, Adult Education)

In any program for the education of the visually handicapped for life the educator must consider all these periods in the individual's life span. The school needs a pre-school program which will prepare the parent and child for proper training in the home and for early school days. The educator needs to follow the child through the elementary and secondary schools, then an important phase generally overlooked, into the after-school life. An adequate educational program for life involves adequate planning for all these periods of the visually handicapped individual's life. It may be of some interest to know that the requests from visually handicapped persons between the ages of eighteen and thirty years of age, to continue their high school education and to enter college or to prepare for certain vocational interests, have become so numerous that our Board of Managers is seriously considering the establishment of an adult extension division in subjects at the secondary school level and in vocational fields.

The education of a visually handicapped individual extends over a longer period than the sighted child, and demands very careful planning.

In the second place, the education of the visually handicapped individual for preparation in life must be divided at least three ways with respect to their mental ability and degree of blindness. The sighted public school faces this same problem, but the technical school has it in a more acute form because of the additional handicap of its students.

We must prepare for life the mentally alert, those of medium mental ability, the retarded and the border-line cases. This means a curriculum and an organization adjusted not only chronologically as to age, but to mental ability as well.

The children and adults are again divided in accordance with their degree of vision. The blind and "partially blind" as we shall call them, must be provided for in the program. Both of these groups must be considered in the education of the visually handicapped for life as most schools for the blind have both groups.

The third problem which the educator of the blind faces is the selection of a training curriculum for these chronological and mental periods and the totally blind and "partially blind". In addition, he must select a curriculum which will be a happy medium between the cultural and vocational points of view.

No school or school administrator can face the alumni without asking a very fundamental question. "Did we give this student the best preparation for the life which he must live?" We say at once that this is not a problem which is solely to be found in the field of the visually handicapped. The American college and the American high school, both public and private, are faced with just the same problem. The only difference is that the American high school and college have taken some small steps toward a study of the problem which may lead to its solution.

It is not a question of a literary curriculum versus a vocational curriculum, but rather of a school curriculum adapted to meet the needs of the students as they face the stark reality of the socio-economic world outside the school classroom. The school curriculum must train for life, if it is to justify its existence. The after-school days, of a student, should be planned for and the problems faced while the student is in school. This in no way suggests that the school should attempt the specific functions of other organizations which are serving the blind individual at various stages of his life. This service does not come within the immediate scope of the school program, but rather that the school should have a carefully integrated program so that it would contribute to the total life of the blind individual and the socio-economic problems he faces after school days. The relationship with organizations dealing with the after-school life of the blind child will be essentially a working co-operative relationship. The school curriculum should contain the elements which will train the child to develop a cultured life with a life training in several vocational directions. Both the cultural point of view and the vocational point of view are essential in any modern school program. Neither should be neglected. Manual arts and vocational training should not crowd out mental development, which is so essential to the visually handicapped. On the other hand, the literary program must not be allowed to play the only role in the education of the visually handicapped child.

A good technical school curricula for the training of the visually handicapped child should be so constructed as to give information, help and guidance and concrete experience to the visually handicapped child in several vocational directions. Adequate curriculum for preparation for life should include consideration of the modern social, economic and psychological problems which the student faces. Social hygiene must not be neglected. In the actual teaching of the subject matter, all modern technical devices should be utilized to perfect the teaching techniques.

The fourth problem which takes a dual form is the education of the public to accept more readily the services of a man without sight or with partial vision, and, in fact, to deem him capable of rendering service. On the other side to have the visually handicapped individual face realistically the world in which he lives. He must prove himself acceptable and worthy. He must have something to sell, he must offer it cheerfully, persistently, patiently without blaming the public which may fail to appreciate at once his talent. The world does not shut the door in the face of any man who can do things - no matter what his condition may be. It is true in poor economic situation, the public spend their dollars more wisely than in periods of economic prosperity, but there is still an "open road for talent" but it must be talent. The visually handicapped person must be taught to face a realistic world with patience, persistence, a realistic attitude toward the world and with a good sense of humor.

I like the story which tells of the attitude of mind of the visually handicapped boy who, while strolling alone one evening, walked straight into a wrongly placed lamp post and bumped his forehead. He might have complained of the inane stupidity of the man who placed a post in an unusual position and made inevitable the collision which he thus suffered. Instead, he was heard to address the lamp post after he had recovered his hat, which had been knocked off, "Oh, you don't need to stand up there so stiff in your pride - I know your iron is harder than my head."

The fifth problem, which must never be forgotten, is that the problem of the education of the visually handicapped child is a technical one. This is not the place for a discussion of the comparative merits of the public school classes, the home tutor and the residential boarding schools. There have been many false and ungrounded criticisms of the existing technical residential schools, due largely to the enthusiasm of an energetic social workers' movement, which did find in its early stages many "social evils" in the old blind asylum and in the so-called effect of "institutionalising" of the child. The inference was, of course, that "maternal solicitude is incomparably better than foster maternity in a lump". Both are at least poor seconds to the real thing and both are purchased, at least, in the handicapped field. The extreme view against the modern technical school is, of course, biased and unscientific. Modern schools for the blidn, whose task is the education of children who do not see or who have greatly defective eyesight should not be classified as asylums, as the asylum stage has largely past. This does not mean that the technical school feels it has reached a stage of perfection, but rather that it believes it has a sound pedagogical leg on which it can stand and deserves to be heard. There are many shortcomings in the program, administration and curriculum of the modern blind school, but I venture to suggest not more than one can find in a fair sample of the better sighted public schools of the nation.

The problem of the education of the visually handicapped child for preparation for life is a technical problem and cannot be adequately accomplished unless the instructor is markedly superior and distinctly individual in his approach. The teacher must be self-forgetful and devoted. It seems folly to expect that a mass program of education in the sighted world for sighted children should find time, money, equipment and training for a small minority. The good technical school is the only school adequately equipped to properly train a blind child for life. At this point one should make some statement concerning the so-called institutionalizing psychology of the technical school. The following description illustrates admirably what children experience who come to attend the technical school whether they come from the Braille class in the sighted school or from a sight-conservation class.

> "Entered at school, as soon as he is able to dress and care for himself, which is usually at seven or eight years of age, the blind child meets a teacher who is set apart for this special work by peculiar ability and self-sacrificing devotion a motherly woman, who, too is something of a missionary and loves little blind folks. He soon finds he is not in a queer world such as the one which he has left, the one where he is looked upon as somebody different, needing physical guidance and pity, and where he received too much attention. To his great surprise he learns there are other little boys who cannot see and, wonder of wonders, they do not need a guide to get around - they run and romp, get bumped and experience falls - in short, live a normal life instead of a carefully sheltered one. Everybody is cheerful and he hears no longer the shuddering pity of the neighbors and friends of the family who weep as they sympathize with his parents over the hard lot of a blind child in the family."

Much sheer talk and popular theorizing has been accepted and much careless thinking has been done in connection with the subject of the institutionalization of children.

The chief task of the educator of the visually handicapped is to "work himself out of a job". If his objectives and methods are thus pointed toward this goal, the visually handicapped individual will more surely find relative stability in a realistic socio-economic world into which he must go and the educator's task in preparing the visually handicapped child for life will have been well done.

A BIT OF SOCIAL PHILOSOPHY

Society's Obligation to the Handicapped

It is necessary to try to find out whether any class in society, be it unemployed, blind, deaf, World War Veterans, etc., has the right to formulate demands on "society"; that is on other classes of the same society. We need also to discover whether the present popular notion that the state owes everyone something is really a truth or a fallacy. Without trying to cover the issue or my point of view, I shall begin the discussion by saying that the State owes nothing more to any class or individual than "peace, order and the guarantee of rights". This is all the blind exceptional should expect and all that they deserve.

It is very popular these days to pose as a friend of the unemployed, the poor man, or as a friend of the working classes. The character is quite exotic; in the United States, anything which has a charitable sound and a kind-hearted tone, generally passes without investigation, because it is disagreeable to assail it or because it is unpopular. Much social discussion of the present time is made to bear upon the assumed rights, wrongs and misfortunes of certain social classes and groups. Much of the present social writing discusses the general plans for meeting the wishes of classes of people who have not been able to satisfy their own desires.

These classes are sometimes discontented and sometimes not. Sometimes they do not know anything is amiss with them until our "friends of humanity" our social doctors offer them aid. They formulate claims against society as their rights. In their view, they have a right not only to pursue happiness but to get it. If they fail to get it, they think they have a claim to the aid of other men to get it for them. They find orators, poets and social doctors who tell them their grievances should be satisfied by the other man.

Amateur social doctors are like amateur physicians -- they always begin with the question of remedies, and they go at this without any diagnosis or any knowledge of the anatomy or physiology of society. They never have any doubt of the efficacy of their remedies. They never take account of any bad effects which the remedy itself may produce. It does not seem to trouble them if their remedy implies a complete reconstruction of society or even a reconstruction of human nature.

These social doctors enjoy the satisfaction of feeling themselves to be more moral or more enlightened than their fellow-men. We have a great many social ills and difficulties with which to contend. Poverty, pain, disease, corruption of the body politic, misfortune -- these are hardships of the human lot which we would continue to struggle against to the best of our ability, were it not for our social doctors, we would endure what we could not cure. But we have inherited a vast number of social ills which never came from nature. They are the complicated products of all the tinkering, muddling, blundering of social doctors of the past and present, become quickly buttressed on habit, fashion, prejudice and new quackery in political economy and social science.

It is a fact well worth noting that when there seems to be a revival in faith in legislative agencies that our citizens are crying for fewer laws and the unification of existing statistics. The greatest social reform now could probably be made by undoing the errors of statesmen of the past without injury to that which is sound and natural.

Unfortunately, our statesmen are politicians, and such a reform is not likely. Most of the trouble has resulted from men and women who sat down and asked themselves the question, "What kind of a society do we want to make?" When they settled that question, they set out _a priori_ to make that ideal society and this is the result. We have produced a lot of pseudo-economists pseudo-educators and sociologists -- so called social workers who have invented sophisms for our thinking and fitted them to distorted facts.

We need to acquire a science of society based on the observation of phenomena, a study of social forces which is truly scientific; and take into account the natural phenomena of social life. The social ills of our day inflicted on us through malice or meddling are quite different from our disposition towards the ills which are inherent in the conditions of human life.

It behooves our social doctor, and educator whatever his grade or his belief, who proposes to change the sphere of the State, to pursue the analysis of the social effects of his proposition until he finds that other group whose interest must be curtailed or whose energies must be placed under control of the course of action which he proposes. He must demonstrate that it will be more advantageous, both quantititively and qualitatively, to those who bear the weight of it, than complete non-interference by the State with the relations of the parties in general.

What then, is the reason why we should help one another? Do we have as a society any obligations to the blind and other handicapped? Unquestionably yes -- men owe to men, in the chances and perils of this life, aid and sympathy on account of the common participation in human frailty and folly. It puts human aid more in the field of private and personal relations under regulations of reason and conscience, and gives little ground for mechanical, wasteful and impersonal schemes.

Because of the number of perils, ignorance, folly and carelessness, we all neglect to obey the moral deductions, so that the best of us act foolish and suffer. The law of sympathy by which we share other people/s burdens, is to do as we would have other do unto us.

Social improvement is not won by direct effort. It is secondary, and results from physical or economic improvement. That is why schemes of social reform always have been arbitrary, sentimental and artificial. True social advance must be a product of growth. The efforts put forth by every science and art contribute to true social progress. Compare the hardships for a wealthy person crossing the ocean a century ago and crossing today. Consider time, money, energy, etc. This improvement in transportation by which the poor and weak can be carried from the crowded Lower East Side in New York City to beaches and country and new land, is worth more to them than all the schemes of social reform. An improvement in a surgical instrument or in a new drug does more for those who are not well off, than all the declamations of the orators or pious wishes of the reformers.

Civil service reform would be a greater gain than the many social reforms. Free trade would be a greater blessing to "the poor man" than all reformers' schemes. It Communists could stabilize currency, they would do more for the wages of the working class than could be accomplished by all their artificial doctrines. Firm laws on investment would do more for the non-capitalist class than a thousand books on the subject.

We owe each other, our blind friend, our handicapped, our unemployed friend:

1. Mutual redress of grievances of weak and wronged.
2. To guarantee rights, but rights do not pertain to results -- only to chances. The pursuit of happiness not to the possession of it. Many fallacies occur when we overlook this social fact. These fallacies run through all schemes and theories.
3. We owe it to each other to guarantee mutually the chance to earn, to possess, to learn, to marry, etc. We must have an open road for talent.

If we have in mind the value of chances to earn, learn, possess, etc., for a man of independent energy, we can go one step farther in our deductions about our obligations to our blind and exceptional friends. The only help which is really expedient, is that which helps a man to help himself. The truest sympathy is not compassion, but a fellow-feeling with courage and fortitude in the midst of noble effort.

Now the aid which helps a man to help himself is not in the least akin to the aid given in charity. If alms are given, or if we "make work" for a man, or "give him employment" or protect him, we simply take the product from one and give it to another. If we help a man to help himself by opening opportunities around him, we put him in a position to add to the wealth of the community by putting new powers in operation to produce.

It would seem that the difference between getting something already in existence from one who has it, and producing a new thing by applying new labour to natural materials in new ways, would be so plain as never to be forgotten. But the fallacy is one of the commonest and most fatal of all programs of social reform.

Our obligation to the blind man is to increase, multiply and extend his chances for independence and economic self-sufficiency, which will in turn produce happiness. We should open the way for his social, intellectual and other talents to find their fullest expression. If opening the way means restriction of other classes and groups, we must weigh costs and decide accordingly.

Let no one think this is an easy task. It is a job for the best of our social scientists, a job which will not be aided by the meddling, sentimental group of social doctors of the present who see theories and rationalize themselves and their followers into more social chaos.

I believe in the first place that most blind men and women can be economically self-sufficient. That he can be self-sustaining without losing his independence, and also without society economically penalizing him throughout his lifetime. The first rule which must be given categorically is, that if he is to succeed economically he must compete on his own social, economic and mental level. It is almost a truism to say that he must do this or compete on a level lower than that at which he now is, which level, inevitably leads to the loss of self-respect and mendicancy.

Society's obligations to the blind man is the same as to any other group in our social structure -- to increase, multiply, and extend his chances for economic self-sufficiency and happiness. This is the only sound social and individual philosophy of the blind man; his only road to independence and society's major obligation to him.

That the blind man or woman can rise to the occasion when given a chance is proven by the lives of dozens of our students who have gone out into the world and made a success of their lives. If time permitted I could tell you their life stories by the hour -- a successful lawyer in Manhattan, a noted orchestra conductor in Chicago, a big transportation man in Long Island, successful Ediphone operators and typists, news dealers, teachers and many others who have achieved success when given the opportunity, success in the very fields where sighted competition is keenest.

Society's obligations to the blind man is the same as to any other group in our social structure -- to increase, multiply and extend his chances for economic self-sufficiency and happiness -- no more, no less.

CURRENT TRENDS IN RESEARCH -

WITH PARTICULAR REFERENCE TO THE EFFECTS OF ANTIBIOTICS

John H. Coldbeck *

From a study of seventy children attending the Royal Victorian Institute for the Blind school at Burwood, Melbourne, it is apparent that in the great majority their blindness began in the first year of life. In fact, in almost half of the children studied, the visual defect was present at birth.

An analysis of the basic data available on these children gives us a pointer as to the most important pathways to be pursued if we are to prevent blindness in children. It also highlights recent trends in research and focuses attention on problems yet to be tackled.

Although in most instances one can accurately establish the site and type of affection producing the visual defect, clearly the important aspect is to discover and prevent the underlying cause, if possible.

Before discussing in more detail the causes of blindness in these children, I would like to express my appreciation to the Institute's Ophthalmologist, Dr. James Foster, for his expert description of the nature of the eye defect in each of these children. Also, it is appreciated that much of what follows concerning the various causes of blindness will be well known to those of you who are engaged in the field of ophthalmology. It is hoped that those of us not so engaged may benefit from this information so that the campaign for the prevention of blindness in children will be furthered.

Table I summarises the type of eye defect found in each of these children.

TYPE OF DEFECT	NO. OF CHILDREN
DEVELOPMENTAL DEFECTS	
ANIRIDIA	5
MICROPHTHALMOS	1
MALDEVELOPMENT OF RETINA	1
" " OPTIC NERVE	1
VASCULAR MEMBRANE	1
GLAUCOMA	2
	11
CATARACT	
HEREDITARY CONGENITAL	6
CONGENITAL	5
POST-RUBELLA	9
	20

---

* Dr. John H. Coldbeck, M.B., B.S., M.R.A.C.P., is Senior Assistant-Physician to Outpatients at the Royal Children's Hospital, Melbourne.

TYPE OF DEFECT	NO. OF CHILDREN
RETROLENTAL FIRBOPLASIA	16
TUMORS	5
OPTIC ATROPHY	4
TOXOPLASMOSIS	2
CONGENITAL CORNEAL SCARS	4
BIRTH INJURY	2
RETINAL DEGENERATION	2
ALBINISM	2
MONGOLISM	1
MARFAN'S SYNDROME	1
	70

TABLE 1

TYPE OF DEFECT PRODUCING BLINDNESS

By far the commonest causes of blindness in childhood act in the prenatal period. These include developmental arrests or abberations of the normal development, genetic factors, intrauterine infection and unknown factors. Of the post-natal causes are included birth injury, excess oxygen administered to the premature baby, tumors and unknown factors.

Let us now review what is known of the various defects studied, with particular reference to cause. Mention will be made of local experience where relevant.

ANIRIDIA

In this disorder there is no iris visible by ordinary examination but finer examination of the eyes at a microscopic level usually reveals that rudimentary iris tissue is present. The condition is bilateral and is an hereditary defect of dominant type. There is a close link with simple coloboma of the iris in these families. It is due to a failure of development at a very early stage, probably at about three months. Other ocular abnormalities may be associated including cataract, optic atrophy and later glaucoma. Apart from its genetic basis the cause is unknown.

MICROPHTHALMOS

This condition is present when the eye fails to develop to the normal size. In this instance it is usually about two thirds of normal size. There are often associated defects in the eye including corneal opacities, cataract and degenerative changes. There are two well recognised causes maternal Rubella and toxoplasmosis. For the rest the cause is not clear. Genetic factors may be present in some and in others microphthalmos may be associated with retrolental fibroplasia. Of interest the one child shown with this disorder is a twin - the other twin being quite normal.

MALDEVELOPMENT OF THE RETINA OR OPTIC NERVE

These may be due to a genetic defect or to intrauterine infection with the rubella virus or toxoplasmosis. Other possibilities include inadequate oxygenation and unrecognised toxic factors.

CONGENITAL GLAUCOMA

In this condition there is inadequate drainage of the aqueous through the canal of Schlemm and the intra-ocular tension rises producing an enlarged eye. The cause is usually known although it has recently been reported as a complication of maternal rubella. The condition can be recognised in the newborn period and successful treatment depends on early diagnosis if blindness is to be prevented.

CATARACT

Congenital cataract is an important cause of blindness in childhood. These defects are perhaps better named developmental rather than congenital in the sense that the moment of birth is only an incident in the life long growth of the lens fibres.

Of the twenty children at the Institute's school with cataracts, six had an hereditary basis, nine had suffered the effects of maternal rubella and in five the cause cannot be explained.

The classification of childhood cataract is not easy but for simplicity they can be grouped according to cause.

Hereditary cataracts are genetically determined and are usually of dominant transmission. They can be recognised in the first few months of life, are bilateral and most do not alter much in time although they may get denser.

Cataracts due to maternal rubella were first described by Sir Norman Gregg in 1941. They are more likely to develop if the mother has German measles during the fifth and sixth weeks of pregnancy, at which stage the lens vesicle is being formed and separating from the surface ectoderm. There may, of course, be other extra-ocular abnomalies involving the heart and hearing apparatus in particular. Current knowledge of the Expanded Rubella Syndrome has provoked considerable discussion and interest. Recent reports have shown that the Rubella virus can be isolated from the lens of these babies up to at least nine months of age. This implies not only initial damage to the lens but probably continuing destruction of lens tissue.

Other intrauterine infections may result in cataract formation. These include toxoplasmosis and syphillis - the former being rare and the latter has virtually disappeared. Of interest I have recently seen elsewhere a child of almost two with cataracts from whose urine the cytomegalo virus has been grown. The relationship at this stage is not clear.

Nutritional cataracts (lemella or zonular) are probably the commonest type of congenital cataract. They are bilateral and develop just before or just after birth. The causes are variable. In some a disturbance of calcium metabolism may be the basis. In others a disturbance in amino-acid metabolism has been demonstrated in a significant number and this can be detected by the excessive amount of amino-acids present in their urine.

Lack of oxygen has been shown in the experimental animal to produce cataract in the offspring. It is well recognised that the premature infant, who may be more liable to anoxia, has a higher incidence of lamellar cataracts.

Post-natally cataracts may be detected due to other causes. In the ex-premature baby, particularly if there has been a stormy period following birth, cataracts may develop after two to three months.

Cataracts may develop in certain generalised disorders of childhood. These include galactosaemia, Lowe's Syndrome, cretinism, Mongolism and certain rare skin diseases, and the more common infantile eczema.

Thus it can be seen the problem of childhood cataract is quite a complex one and one in which a variety of causes can be found.

Recent studies in New South Wales by Harley and others have focused attention on other possible causes of cataracts in children. They studied a large number of children with cataracts and after excluding those with a definite cause were left with almost sixty children. They produced several interesting results. There was a high incidence of low birth weight in this group and the incidence of cataract was particularly high in those children of low birth weight who had a stormy post-natal period necessitating prolonged administration of oxygen or antibiotics. In the group they studied there appeared to be a high incidence in the mothers of toxaemia, dietary inadequacy or chronic anaemia. They noted that almost every second child had been exposed directly or indirectly to a diureide barbiturate. It will be noted that monoureide barbiturates given to experimental animals have resulted in cataracts in the offsprings.

The other point of interest in the New South Wales survey was that just over one third of these children had been exposed to antibiotics, particularly the tetracycline group. The suggestion has been made that certain aromatic compounds, particularly tetracycline, may compete with the normal biochemical processes in the lens and increase the denaturation of lens protein.

Although this work needs to go further it does suggest the need sor careful attention to the possible role of certain drugs used during pregnancy or in the newborn period as a possible cause of cataract in the baby.

In elucidating the cause of congenital cataract we must look at many factors - genetic, nutritional, pre and post-natal infection, oxygen and aromatic drugs including antibiotics. It may be relevant to mention at this stage that another antibiotic, chloramphenicol, has recently been reported to cause optic neuritis in older children.

RETROLENTAL FIBROPLASIA

It is now well known that excessive oxygen administered to the premature baby produces this disorder. Dr. Kate Campbell in Melbourne, was one of the first to draw attention to this association. Although there are a big group of children at the Institute's school whose blindness is due to retrolental fibroplasia, this disorder has virtually disappeared from the newborn nursery with modern methods of oxygen administration.

TOXOPLASMOSIS

Toxoplasmosis is a rare and rather mystifying cause of blindness. The protozoan parasite causing this disease is probably widespread in the animal and human population, yet its exact incidence is not accurately known. Congenital toxoplasmosis is the only known natural mode of transmission of this infection - the mother usually showing no signs of illness at all. The disorder consists of a chorioretinitis involving chiefly the macula. The disease may be active before birth or in the early months of life. Diagnosis is confirmed by a dye test but there is currently no effective treatment.

For the remaining causes of blindness time permits only brief mention of some relevant points. In Mongolism, Albinism and Marfan's syndrome, the eye defect is only part of a generalised problem, in each instance there being a genetic factor.

The problems of birth injury and, probably, scarring of the cornea involve the subject of obstetric care and will not be discussed further.

Of the five children blind due to tumors, these usually involved one or both eyes or optic nerves. The early diagnosis of retinoblastoma before it involves the other eye and the careful examination of siblings eyes at periodic intervals warrants emphasis. With these and the other malignancies that occur in this area, early diagnosis and prompt treatment are the only hopeful suggestions at the present time. Fortunately these tumors are rare.

From what has been said it is apparent that much is still to be done in the field of prevention of blindness in children. Our own work to date has been chiefly at the clinical level. Further investigation, of a retrospective nature, will be directed to a careful assessment of the family history, details of the pregnancy including intercurrent infection and drug administration, the nature of the birth and the immediate post-natal period. Certain special investigations are underway on these children in whom no cause for their visual defect can be found. These include x-rays, blood tests and analysis of their urine with special attention to detecting evidence of metabolic disorders. On the basis of the above comments it is clear that viral studies will be most important.

The role of the rubella virus has been stressed. Not only is clinical rubella an important factor during the early months of pregnancy but let us remember the important and equally damaging effects of sub-clinical rubella where the mother may show no outward signs of this infection.

It has been shown that the German measles virus has been implicated in eye defects other than cataract. More recently there has been evidence in the experimental animals that the mumps virus and the virus producing infective hepatitis can cause eye disorders in the offsprings. The further study of virus infections during pregnancy would seem to be the most important field for further study and the one from which the most useful results are likely to come.

AUDITORY TESTING FOR THE VISUALLY HANDICAPPED CHILD

Gerald J. Little *

It is regretted that no notes are available in respect to Dr. Little's discussion.

---

* Dr. Gerald J. Little, M.B., B.S., D.L.O. (Lond.), F.R.C.S. (Edin.), is Consultant E.N.T. Surgeon to the Royal Victorian Institute for the Blind.

RECENT DEVELOPMENTS IN VISUAL AIDS FOR THE VISUALLY HANDICAPPED CHILD

James B. Foster *

Introduction:

As there are among you a number of non-medical people, I will try to avoid technical jargon and try to make this subject interesting.

The amount of sight which the children have at our blind school varies a great deal from total blindness, to partial vision.

The eye develops as an outgrowth from the brain, and unfortunately some of the children are mentally retarded and therefore unable to benefit from a visual aid of any sort.

Some children have perception of light, colour, movement and shapes.

Those children who have enough sight to be able to read with the aid of special magnifying lenses, and who are keen and able to learn their lessons, make the time and trouble we devote to improve their vision well worth while.

Nearly all our children suffer from congenital eye conditions. That is, they are born with the abnormality and they have never known normal vision. Thus they have grown up with defective vision and have learnt to make the most of what they possess from babyhood.

A child will manage a special visual aid very well, where an adult who had good vision which has been reduced to the same degree as the child, finds it impossible to manage.

The causes of defective vision among our children at the institute school are various.

The commonest cause is congenital cataract; caused by rubella, and some of them are of unknown cause. Despite operations on the eye, vision in these children is still defective, although greatly improved by surgery.

Next in incidence are atrophy of the optic nerves due to various causes, and retrolental fibroplasia. We know now that retrolental fibroplasia is due to giving premature babies too much oxygen, and the condition is now preventable.

This disease first became apparent in 1942, and it affected premature babies all over the world. We Melbourne folk are proud that in this city Dr. Kate Campbell propounded the hypothesis of over-oxygenation which was proved by research to be the correct cause. Today the amount of oxygen given to premature babies is carefully regulated, so we do not expect any more children with retrolental fibroplasia to require our services in future.

---

* Dr. James B. Foster, M.A. (Cantab.), M.B., B.S.(Melb.), F.R.A.C.S., D.O.M.S.(Lond.), D.O.(Melb.), F.R.C.S.(Eng.) is Honorary Oculist to the Royal Victorian Institute for the Blind.

The rest of the numbers are made up of a few cases each of corneal opacities, abscence of iris, abnormal development of the retina, eyes removed for malignant tumours inside the eye, congenital glaucoma, and albinism.

The Retinal Mechanism:

The greater part of the interior of the eyeball is lined by the retina. This membrane is composed of nerve cells which convert the images of objects we look at into nervous impulses. These impulses are transferred up the optic nerves to the brain which does the actual conversion into vision.

The retina may be compared to a shooting target - the vital area akin to the bull's eye in the centre is the macula lutea, and the very centre of the macula is called the fovea centralis.

The wonders and beauties of this world are appriciated by the macula lutea only 1.5mm in diameter, and the fovea centralis of the mercula which is approximately 0.3mm horizontally and 0.2mm vertically.

The children we are concerned with have been deprived of macular vision, and they have to make the most of other parts of the retina which are not designed for sharply detailed vision.

At the fovea centralis vision is 100%. Half a millimetre from the fovea, visual acuity is only 60%; one millimetre from the fovea visual acuity is only 40%; three millimetres from the fovea it is only 20% and an image formed on this area of the retina would therefore need to be magnified five times to give 100% acuity at the same level as at the fovea.

It has been ascertained that the normal "span of comprehension" is about eight characters. Thus eight-lettered words e.g. coaching, perceive, can be read instantaneously without the eye having to scan each letter separately.

A lens to give magnification above X20 is not available. Thus people whose visual acuity is very low are limited to the size of print they can read.

Magnifiers usually render unnecessary the correction of astigmatism by cylindrical lenses, even high degress of astigmatism.

The magnification given by a convex lens is one fourth of the dioptric power. For example, a X3 magnifier is a 12 dioptre lens.

There is a difference from the ability to see individual letters to being able to read a word, and from being able to read a word to reading books.

The acuity that can be achieved by patients with central and paracentral scotomata is largely dependent upon careful choice of the direction of eccentric fixation.

It is better for reading when the upper half of the letters can be seen than when only the lower half is visible. Therefore if a patient with a central scotoma is directed to fixate below the word, the top half of its letters will be imaged adjacent to the scotoma and prove easier to read. Children work this sort of thing out for themselves whereas adults have to be taught.

Special Aids:

Those people with fairly good retinal function can be helped by strong opherical lenses. Within the last few years lenses have been made of plastic. Plastic has two big advantages over glass (1) It cuts out optical aberrations which cause distortion of images, (2) It is much lighter and thus is more comfortable to wear in spectacles. Thick glass lenses can be very heavy on the nose, specially the little nose of a child.

Recent developments in plastic lenses are the bifocal, and the crescent. The crescent removes the sense of isolation which some people feel when their distance vision is cut off by a magnifier.

Bifocals have the advantage of convenience and they can be used for binocular vision. They are inconvenient in making it necessary to hold books very close to the eye when using the reading segment, however some people find them useful.

Telescopic lenses: are a more complex optical lense system, but they have proved to be a great help for many partially sighted people, particularly for reading. We use the testing set made by Keeler.

All magnifiers have the disadvantage of short focal distance so that reading matter has to be held close to the eye, sometimes as near as one inch. With high magnification it may be impossible to read a whole long word at a glance, nor to scan a line of words quickly. This means the field of view is reduced. Also it is necessary to look through the centre of the lens because the vision through the edge causes distortion owing to spherical aberration.

Many adults are unable to maintain interest and concentration because of these optical difficulties, and visual and mental fatigue render special visual aids unusable.

The advantages of telescopic lenses over other types of magnifiers are the increased focal distance and a larger field of view. Books do not have to be held so close, and in addition to greater comfort, it is possible to improve the illumination on the page.

Illumination is important, it should be adjusted to suit the individual needs, and the visual acuity can be improved by increasing it, or sometimes by decreasing it.

Sometimes increasing the illumination will enable reading with a magnifier which was impossible with lower illumination. It should be remembered also that inferior quality paper and printing type depress acuity and a stronger illumination is needed.

Reading Telescopic lenses: Telescopic lenses for reading are of two types: (1) Full field telescopics and (2) narrow field telescopics.

The full field telescopics have the advantage of good magnification and good range of focus. Beyond X2 magnification the full field telescopic cannot be used binocularly.

The full field telescopics have magnifications up to X8. They cannot be used for distance vision, but only for reading.

Narrow field telescopics give magnifications up to X6. They are useful for binocular vision. In comparing the fields of view, a X6 full field telescopic fits in three medium sized words; a X6 narrow field telescopic fits in only one medium sizes word in the field.

Distance Telescopic lenses: These are of use in the class room for looking at the blackboard. But they are of no use for walking around in because, as we have explained the expanse of the field of vision is too restricted.

There are three ways by which the wearer of these lenses can change the focus from room distance to a near focus for reading, quickly without removing the glasses.

(1) a bifocal telescopic is available with a small distance lens set within a near focus lens.
(2) a lens contained in a cap can be capped onto the front of the telescopic lens to give a stronger focus for reading.
(3) an alternative is to hold a quizzer in front of the reading telescopics in order to see the blackboard. The quizzer is a minus lens for this purpose.

When frequent changes of focus are not needed, e.g. while watching TV, minus caps can be fitted over narrow field telescopics. These caps are not suitable for full field telescopics.

The big advantage of all these telescopic lenses is they can be put in spectacle frames so that the hands are free. This modern development enabling both hands to be free is very important, specially for children doing school work.

Fitted in spectacle frames, a telescopic lens costs about 30 dollars; 60 dollars for binocular vision.

A more recent development (by Hamblins) for reading only, is a lens incorporating a cylinder for astigmatism. This compound lens is in powers from X2 to X15.

The Tellup: This lens will give magnifications of X2½ to X6 in the one unit quickly and easily. By simply sliding it forwards and backwards one can focus for reading or distance.

Although the field is very small - only part of a word can be read at a time - some people prefer it because it is convenient and light to wear.

Most children prefer telescopic lenses which are displacing the tellup.

Raymag: Lenses made by Rayners, are simple form lenses for reading only. They give magnifications of X4, X6, X8.

Compared with telescopic lenses they have the disadvantage of a close focal distance, but they have a better appearance.

They can be made as a reduced aperture or a full lens.

Non Optical Visual Aids:

(1) A modern conception in assisting children to read is to provide them with large print to read. This enables them to use lower magnifiers with the advantage of a wider field of view and a further focal distance.

We have obtained a machine from Rank Zerox which takes photographic enlargements up to 82% enlargement of printed pages.

The children often have to rely on hand printed copies of books. These are painstakingly and excellently done, but they tend to make the child inferior because he is not reading a proper book.

The photographic enlargements are a particular help for the study of text books of a technical nature.

(2) Our headmaster, Mr. Douglas, is developing methods of large writing. He noted that the totally blind children could take lecture notes on the Perkins Brailler much quicker than the partially sighted children could by writing slowly. The latter would slow down the lecture by asking the teacher to repeat statements because by the time they had written part of it they had forgotten the rest. Meanwhile the braille children were waiting to continue.

Mr. Douglas has introduced large writing on large ruled sheets. The children can now work further from the paper, and in addition to greater comfort, it is improving their posture.

Acknowledgment:

I have been greatly assisted in the preparation of this paper by Mr. F. Feuggle. Also he and Mr. Campbell of O.P.S.M. have devoted much time to testing our children with the modern visual aids.

THE GENERAL PRACTITIONER AND THE BLIND CHILD

G. R. O. Walpole *

May I open my remarks with a story. A true story concerning one of our school children, who shall be called John.

John is an older boy recently totally blinded as a result of an accident. He had been a very active boy more inclined to play games than read books. The initial shock of his blindness had only just been overcome when he came to our school in Burwood early this year. Unable to play the usual sports of cricket and football so loved by boys of his age, John found that the avenues of activity available to him, since his accident robbed him of his sight, to be particularly narrow. He was being pushed academically rather harder than he wished and severe frustration was never far from the surface. John often wanted to escape his difficulties by leaving school and returning to the sanctuary of his home; a situation we were particularly anxious to avoid as he lived many miles in the country and once lost, his chances of eventual rehabilitation would be considerably lessened.

Gradually John conquered the minor frustrations, and as each difficulty was overcome his wishes to return home became less frequent and demanding. Recently John left the school for a holiday week-end to stay with relatives nearby. On the Saturday evening an emergency phone call from his relatives was received at the School, indicating that John had suddenly become very agitated and was creating a disturbance verging on the destructive; all on account of an argument which had begun simply and then got out of control. The relative was most alarmed and nothing could be done to quieten John, who was quickly returned to School and the doctor called. John's highly emotional state soon responded to the presence of an authoritarian person and a long talk released his pent up frustration. He was given a sedative and put to bed. He recovered so rapidly that he was able to go back the next day to enjoy the rest of his week-end break from school. This particular problem was considered an emergency by everyone concerned with it at the time - that was until the doctor was called. In fact John was rapidly relieved and his relatives rapidly reassured. The incident was recorded in the medical records and just as rapidly forgotten. The key person in this story is the doctor, in this case a general practitioner.

Perhaps you know what a general practitioner is because you have personal dealings with one. However, it may be helpful to discuss now the nature of the medical practitioner we commonly refer to as the "G.P.".

The term general practitioner is hard to define and it has become customary to describe him by what he isn't, rather than what he is. In other words he isn't an Oculist or he isn't a Surgeon or he isn't a Psychiatrist. He has also been referred to as the doctor who spreads his knowledge over a very wide field, in fact he becomes a "one man orchestra". The implication being that his knowledge must be spread too thinly to be effective, culminating, as the old joke says, at the absurd point where he knows so little about so much that he knows nothing about everything.

---

* Dr. G. R. O. Walpole, M.B., B.S., is Visiting Medical Officer to the Royal Victorian Institute for the Blind.

Certainly the modern general practitioner is quite unable to cope with the explosion of scientific knowledge that is characteristic of our modern world. He would need to be a veritable "Super-man" to acquire half the skills, or even a smaller portion of the knowledge, that now comprise the practice of medicine; and this gap can only widen further.

Of these two definitions the first is explanatory in a negative sense only, whereas the second is now become quite old fashioned and misleading. The general practitioner has now emerged as a very special type of doctor in an era of super-specialization. He has become the patient's doctor, and specializes in treating persons rather than organs and diseases.

May I now list for you some of the characteristics I would expect the good G.P. to possess. This does not mean that many of them are not exhibited by other members of my profession, but I would go as far as to say that they are more essential for a general practitioner than a Specialist.

1. He should possess a wide medical knowledge and keep this up to date.
2. He should supply continuing personal medical care to his patients as far as possible on a day to day basis. His patients should have free and prompt access to him.
3. Where necessary he should be able to see his patients and deal with them in their own environment whether this be home, school or institution.
4. He should possess all the attributes we expect from a family doctor; dependability, kindness, and a continuing interest in the patient and his world.
5. He should be able to deal with people of all ages and types, whether sick or well.
6. He should have interest in, and be able to solve where possible, a wide variety of problems concerning interpersonal relationships.
7. He should be a willing recipient for confidences, whether medical or personal, with the full assurance to the patient of professional secrecy and wise counselling.
8. Once the immediate problem is solved he should ensure that the patient ceases to be dependent on him.
9. His approach to each patient should be individual and his treatment impartial. He should not be solely devoted to drugs, operations or psychotherapy.

I doubt if such a person exists but at least the guidelines are there.

The more technical and specialized the art of healing becomes, the more essential it is to have such a functional unit as the general practitioner available to interpret, direct and fulfil these technicalities in terms of patients and people. How can such a doctor integrate his skills with specialist members of the academic and medical team in the context of a school for handicapped children?

LET US FIRST LOOK AT THE PAST

The history of the Royal Victorian Institute for the Blind has been well recorded during the past century, and it is interesting to read that the medical profession has been closely associated with Blind children since the Institute opened its doors in 1866. Two doctors were appointed to the Staff of the Institute on August 21st, 1866. Dr. James Rudall as Hon. Surgeon/Oculist and Dr. William Farrage as Hon. Physician. Nine children were admitted in 1866, and the numbers had risen to fifty in 1868. By 1872 there were ninety six inmates. These numbers can be compared with our present complement of seventy two children at Burwood. It is interesting to read an extract from Dr. Rudall's report in 1882 which analyses the causes of blindness of the inmates of the Institute in that year. Congenital causes and injuries, which now comprise the bulk of our cases, in that year totalled only 12% of admissions. On the other hand various forms of inflammation of the eyes, including congenital syphilis, and which accounted for over 60% in 1882, have now been virtually eliminated. With increasingly active medical research into the causes of congenital blindness, such as that on which our Consultant Medical Staff are now engaged, it can be confidently hoped that a similar break through will be made on congenital causes in the future.

Dr. Charles Bennett was first appointed Honorary Medical Officer in 1942 and has therefore almost completed a quarter century of continuous service to this Institute, a record of which he can be justly proud.

LET US NOW LOOK AT THE PRESENT

It was not until the transfer of the School from the original building in Prahran to its present site and modern structure at Burwood in 1960 that the need for a locally situated "family doctor" type general medical service was realized. I happen to live close to the school and this was sufficient reason for the President of the Institute, Dr. Charles Bennett, to approach me, just as the new School opened, to be available to treat any of the children should the school authorities consider this necessary from time to time. I was pleased to accept this offer and have been associated with the School ever since. This then represents my own sixth anniversary with the school. At this point I would like to pay tribute to Dr. Bennett who prior to my appointment at the Burwood School did an excellent job as Honorary Medical Officer with his attention to all the children at the old school in Prahran. He must have had many calls on his time as the staff was much smaller in those earlier days. He gave freely of his skills to this Institute in an entirely Honorary capacity. He still holds the position of Honorary Medical Officer, and as such has made himself freely available to me for advice and guidance.

In describing the ways in which a general practitioner may be useful to a blind child, I will find it necessary to trace through my own career at the School, because I believe this to be unique in Australia at least, and because it forms the basis of the system under which I have commenced to make a meaningful contribution to the life and welfare of the blind child. Whether this association with the school can be carried further is a matter of evolution as time goes on; and if there are any further demands on my time they will certainly be met if at all possible.

At the outset Matron Dunell would call me at irregular intervals to attend any children who required medical attention. Rather contrary to my expectations these early problems were very little different from those I was being called to solve in my own general practice. The bulk of the sick children were suffering from acute or recurrent respiratory disorders, minor epidemic illness or occasionally from the effects of injury. These presented no real problems, as they comprised the usual day to day run of easily managed illnesses.

The only major additional problem concerned the children who were suffering from active eye disorders. These children were, and still are, treated by immediate referral to the Honorary Oculist of the Institute, or to the child's own private Ophthalmologist.

I found my early association with the school to be very happy and rewarding. The children were mainly very healthy, and my new duties were far from onerous.

Whenever I called at the school the usual pleasantries blossomed into informal discussions, and before long Matron Dunell was asking my advice about children who were not ill but who were presenting problems to her in general management. It soon became evident that the advice of a medical practitioner was required in many ways large and small and not directly related to the treatment of sick children. These problems may not have been entirely within the province of the old time concept of of medical practice, but as they concerned the happiness and personal welfare of the children and could reasonably be included in the term "total medical care", I feel that as a General Practitioner I was vitally concerned with their solution. These extra duties would maybe concern discussions with parents of pupils, discussions with Consultant Medical Officers, or even advice to the teaching staff about a particular child.

However, by far the most important extra functions at this stage seemed to be the discussions between Matron and myself. Matron Dunell helped me to appreciate at first hand the tremendous handicap of blindness to the individual child and introduced me to the challenge that blindness presents to those people charged with the care of blind children. Matron herself felt reassured by our talks, and often told me that she could see the solutions to many of her problems even though no advice had been consciously given to her by me.

From here it was evident to us both that occasional emergency visiting was not enough, and I decided to call at the school on a regular weekly basis in 1962. These visits would occupy about one hour which was fully occupied with seeing sick children, discussions with staff, routine medical examinations and immunization programmes, and finally supervising the detailed medical record which is kept one for each child. The treatment of sick children is certainly the most important of my functions, but over the years has required less time and effort than those other functions comprising the total medical management of the visually handicapped child.

During 1965 one weekly visit to the school was not enough, and this year I have consistently visited twice weekly and have found approximately one hour fully occupied each time.

With Matron Dunell in constant daily attendance it has been possible to introduce the ideal system which virtually amounts to medical supervision on a day to day basis. A telephone call can often save an additional visit to the school.

Whether more frequent regular visits are necessary, except for emergency calls to sick children, will depend on future developments at Burwood. At present bi-weekly visits of our hour's duration are quite adequate.

During 1965 as my duties with the Institute became more defined, I was rewarded with the title of "Visiting Medical Officer". This really suits me just fine, as it accurately describes my present function.

One of the difficulties in preparing and presenting this paper is the lack of dramatic situations to discuss with you. During the six years of my association with the school I have made no brilliant diagnosis nor saved the life or sight of any child. The daily life of the children appears very ordinary and humdrum on the surface. However, to the insider it presents many examples of minor difficult situations in which a general practitioner can be usefully involved. One can take great satisfaction in thinking, perhaps correctly, that many of these minor difficulties are prevented from assuming major proportions by prompt recognition and timely treatment.

I will now tell you about three cases which illustrate this point.

Mary is aged twelve and has been with us for almost a year. She is a very quiet girl who has been going home to her family each week-end. Mary would tend to be very unsettled for the first day or two back at school each week and would then settle down and make progress. This cycle was repeated, and each week the expected improvement did not occur, it became apparent that something must be wrong at home. The behaviour problem exhibited by Mary was making it virtually impossible for any academic progress to be made, as most of the week was spent getting over the previous week-end. It soon transpired that Mary's mother was suffering from nerve trouble. Her doctor rang me to say he was quite worried about the impact of Mary and our school upon his patient. I was able to state that the school was equally worried about his patient's impact upon her daughter's school work. A very useful change of ideas then took place so that each doctor could better treat his patient. Mary was given a tranquilising drug for a short time which enabled her better to adjust to the changes of her environment, and has now settled down to making better progress at school. If neglected such a situation as this could have resulted in the pupil being taken from school and possibly never returned.

Our deaf-blind unit furnishes me with another example of a behaviour problem, this time common to two children. Alan and June have been partially blind and deaf since birth. In particular both are very deaf. As you can imagine the problem of communication with the outside world with these two handicaps combined is very great indeed. These two children are almost certainly possessed of normal intelligence but both are extremely prone to attacks of severe frustration occasioned by the difficulties of communication. The attacks usually take the form of irrational and unruly behaviour. Not only do these attacks prevent the child from learning anything but are very disturbing to staff and other children. I have found that the use of tranquilizing drugs with these two children has been of great benefit. However the dose of these drugs has to be varied from time to time to meet the circumstances. This can only be achieved by day to day evaluation. I feel that without these drugs, the educational programme of Alan and June could not have progressed so well, and in fact could possibly have not been undertaken at all.

The third child is a senior boy, Robert, who worried Matron last year by becoming lethargic, losing weight and going right off his food. His personality became difficult and his school results unsatisfactory. A complete physical check up was performed and Robert was confidently informed that his general health was sound. It was only then that he was prepared to discuss his work and tell me of his present difficulties and fears for the future. In such a case as Robert's the physical examination was not only useful in excluding physical ailments but was instrumental in establishing rapport so that an effective discussion of personal difficulties took place. I like to think that this boy was saved from a lengthier and more severe psychiatric illness by early intervention.

You would not deny that blindness constitutes one of the severest common human handicaps. To enable this handicap to be overcome, the individual must rely heavily on all his other bodily resources.

The medical management of the blind child must involve the conservation and nurture of these resources whether they comprise the other senses such as hearing, smell and touch, the alert and receptive mind, or the health and active physical state of the body.

The doctor must play a big part in seeing that mental and physical capacity is kept to a maximum for each child, so that the best results of training programmes can be obtained. This involves two areas in which the general practitioner is particularly well trained to perform.

1. PREVENTION: Preventative medicine falls under three main headings -

    (a) The routine matters of hygiene common to any institution are looked after ably by the Staff of the school. However, matters of individual hygiene are very much a province for the doctor, and illnesses of an infectious nature can be managed by isolation in the sick bay at the school. Occasionally medical advice is required in special areas such as the swimming pool.

(b) Each child at the school is submitted to a complete programme of immunization in line with current medical practice, and the innoculations are kept up to date. The diseases against which innoculations are given are whooping cough, diphtheria, tetanus, polio-myelitis and tuberculosis.

Injections against the common cold and influenza are given in selected cases, and some children have been vaccinated against small pox.

(c) A thorough appraisal of each child's health and bodily capabilities enables an intelligent list of do's and dont's to be provided to the school staff. Examples of this concern children with heart trouble who do not play vigorous games, children with recurrent ear infections who do not swim in the swimming pool, and children with eye haemorrhage who must not exert themselves at all. The general practitioner is in an excellent position to discuss each child's capabilities and weaknesses with the Headmaster and Teaching Staff.

2. TREATMENT:

The early diagnosis and prompt corrective treatment of a wide variety of common ailments such as tonsilitis, bronchitis, middle ear infection, gastric upset and the common skin disorders fall very readily to the general practitioner.

At Burwood we have endeavoured to establish a routine whereby all the children are subject to a complete physical medical examination at least once a year. Matron Dunell is forever alert to even minor departures from normal patterns of behaviour or health, and these are handled on an individual basis as they arise. Facilities for X-Ray and Pathological examination are close at hand, and in cases where it is indicated consultant advice or hospital admission can be arranged. I would like to comment on the excellent co-operation of three hospitals in particular, The Royal Children's Hospital, The Alfred Hospital and the Box Hill and District Hospital and now thank them for their help in facilitating admission of urgent cases.

As visiting Medical Officer to the Burwood School I have the personal friendship and professional help of a team of highly trained medical consultants who comprise the Consultant Medical Staff:

1. The Honorary Oculist:

Dr. James B. Foster has occupied this position for over six years, and his concern for the children's sight and ready availability in an emergency has been of paramount help to me. Dr. Foster examines each child before admission to the school and at least once every year during their schooling.

2. The Consultant Pediatrician:

Dr. Stanley Williams holds this responsible position and is always available to Matron Dunell or myself to help in solving any difficult medical problems. He he examines all children prior to admission and attends the school at least two days per term to discuss work with the teaching staff, nursing staff and myself.

3. The Consultant Ear, Nose and Throat Specialist:

This is Dr. Gerald Little who examines all children prior to admission and visits the school twice per term to check on any children with ear, nose and throat troubles. Each child at the school is given audiometeric testing for his hearing, and all cases of deafness are thoroughly investigated.

4. The Consultant Psychiatrist:

This position is held by Dr. Alex Sinclair who makes no regular visits to the school, but sees any cases referred to him by Dr. Williams, Matron Dunell or myself. These are mainly behaviour problems, with an occasional more severe psychiatric disturbance. Dr. Sinclair has access to consultant psychological advice, and intelligence tests and other psychometric testing can be performed when considered necessary in any particular case.

I have the greatest respect for my colleagues versed in the science of Psychology and in every way wish them to quickly obtain solutions to many questions in respect to the behavioural problems of the handicapped child.

However I feel that in the educational and medical spheres there is a sometime desire to see a problem case in terms of disposal rather than solution; in other words "if it is someone else's problem it is not mine".

It would be easy to obtain full psychological examination for all the children at our School but to me this would have certain disadvantages in the handicapped situation.

a. If children are put in categories it is very difficult for them to pass beyond the bounds of those compartments, particularly in an upwards direction.

b. Perhaps the school staff, subject to the usual human frailties and prejudices, might be tempted to try rather less with the relatively handicapped child.

c. Some of our own children have had opinions expressed about their potential in the early stage of their schooling and this has been subsequently proven wrong by the process of further education. There are difficulties in the assessment of the potential of a normal child, and these are much greater in making similar assessments with a poorly educated visually handicapped child. Is such a child blind-retarded, or, on the other hand retarded-blind?

   In my opinion it is only by instant and skilled attention by the school staff to the individual child that the answer to this question can be obtained. When in doubt keep trying! The final answer may be obtained sooner, but to me may take up to two years.

If any person in the street is in trouble we are taught from childhood to call a policeman. If doctors and teachers are in trouble it seems to be the fashion to call a Psychiatrist or Psychologist. I often wonder who the Psychologist will call when he cannot cope with a particular problem. I would like to think that a competent general practitioner could fill this role!

The medical care of the blind child therefore involves four doctors at the very least and sometimes up to six. This state of affairs could easily become unwieldy without a focal point. The general practitioner naturally falls to this job as he can accurately represent the point of view of any participant in any discussion or consultation which may take place, whether child, parent, teacher, consultant doctor or institute.

Each child has an individual medical record and I have worked hard to ensure that this is accurate, comprehensive, and up to date. Each history contains a written record of all medical consultations, illnesses and behaviour problems; also a yearly report from Matron on the social progress and from the Headmaster on the academic progress in cases where this is indicated. The medical history is available to nursing and medical staff only, as the contents are regarded as highly personal to each child and therefore privileged. I feel that the Institute needs a doctor to be responsible for these records, as also does the consultant medical staff. This again is an ideal position for a general practitioner. I would now like to pass to the so called lay staff at the school and discuss more particularly those with whom I have a special relationship:

1. The Teaching Staff: Even in the normal schooling of an unhandicapped and healthy child, it is my experience that problems can arise which can be helped by consultation between teacher and doctor.

In such a school as Ours where 100% of the pupils are severely handicapped by blindness to begin with, and of the total number 55% are suffering from multiple handicaps and a further 17% are in fact suffering from severe or progressive disabilities, it becomes imperative that medical advice be close at hand, and that a close liaison exists between the educational and medical sides of the staff. It has been my aim to meet with the Headmaster, Mr. Charles Douglas at least once per term to discuss points of mutual interest in medical or educational spheres, or more specifically the problems of pupils who are experiencing difficulty at school. I am always available to advise in individual cases, although in practice Matron often acts in my stead to convey any relevant reports to the Headmaster.

The teacher is in an excellent position to give the doctor much helpful information, and the academic progress of a child can be a valuable guide to his health. A poor or deteriorating academic record is an urgent indication for thorough medical investigation to exclude disease as a possible underlying cause.

Mr. Douglas has a great knowledge and ability, which coupled with a boundless enthusiasm and a refreshing openmindedness makes our meetings very stimulating. These meetings can only grow in importance, as we find mutual interest in each others problems. In all cases the teacher must be advised concerning physical disabilities and their possible effects on education and behaviour, for example, the teacher should know the degree of blindness and the presence or absence of hearing loss; although in practice the teacher often knows more about these things than the doctor, as he has so much more time to observe the child.

The child with a brain tumor could present a disciplinary problem in class - how cruel it would be if the teacher was not aware of this disease. Children on drugs or sedatives for a wide range of disorders may have unexplained variations in their behaviour as a result of these drugs or the underlying disorder. These facts should be at the Teacher's disposal. The teacher should certainly know if any child under his care is likely to take epileptic fits. These examples mean that medical reports must be translated into simple every-day language for the teaching staff; in other words what the child may or may not do, or what may be expected from a particular child in terms of mental or physical capacity. These are often variable from time to time, and form a better vehicle for discussion than a written report from the doctor to the teacher. After all, discussion is a two way communication.

2. The Matron and Nursing Staff:

The entire medical Welfare programme at Burwood depends heavily on those members of the staff responsible for the day to day care. Our children are extremely well catered for in this regard because the Institute has obtained the services of a very well qualified, long experienced and highly dedicated nursing sister to be Matron in charge of the residential section of our school.

Matron Dunell is assisted by a capable staff of 5 qualified nursing sisters and 10 mothercraft nurses. A high level of understanding and co-operation has always existed between Matron and the medical staff. My own tasks as Visiting Medical Officer have been made much easier by her constant reliability. Matron has a great responsibility acting as Fostermother, nurse and confidante of every child under her care, as well as being a capable administrator to her staff.

Matron Dunell has often said that her responsibilities and hence her workload, are considerably lightened by the ready availability of medical advice all day, every day. Because her confidence is increased so is her effectiveness as a Matron. If for no other reason, my help to Matron would make my work at the school, and the effort it entails, fully justified.

3. The Physiotherapist:

Miss Hughes attends the school once weekly and gives treatment to all children with postural and musculo-skeletal defects. Three times a year Miss Hughes, Matron Dunell and myself meet with the children who appear to require physiotherapy, and a plan of treatment is made for each child which is reviewed again at the next meeting. It is very gratifying to see that those common postural defects such as drooping shoulders and protruding necks, which we work so hard to prevent, are far less common than in the past.

4. The Parent:

The interview between staff and parent particularly in time of trouble, or when bad news must be imparted, is one of the most sensitive areas involving inter-personal relationships, and is probably the most difficult single task that must be performed by anyone caring for the handicapped. The ability to give unpleasant news to a parent about his child without creating offense, emotional upset or devasting pessimism is a talent not many people possess. A doctor is usually equipped by training and experience, and also by his authority, to deal with these tasks, and I have been asked by Matron Dunell to act for her in this way on several occasions. I also feel that parents should, as in practice they do, have ready access to me or any member of the consultant medical staff to discuss their children's health. Perhaps a school for parents or a course of instruction in aspects of the handicapped situation would be a worthwhile concept.

5. The Executive Director:

Mr. Frank Turley may not be physically a member of the School Staff, but his pleasant influence and wise counsel certainly prevail at Burwood. I meet often with Mr. Turley and always leave his presence a little wiser. In top level discussion I have found him always quick to reach the point at issue and his decisions are always based primarily on the happiness and welfare of the pupils and staff and secondarily on the good name and reputation of the Royal Victorian Institute for the Blind. His past experience as a very successful hospital administrator has made him wise in matters of a medical nature and particularly sensitive to the doctor-patient relationship. This gentleman has welcomed me and then given guidance to establish a relationship with this Institute that I am sure no other doctor has with any other similar Institute in this country or abroad. I am proud of this association which I feel owes much to Mr. Turley's foresight and encouragement.

In presenting this paper to you today I have endeavoured to introduce the new concept that the modern day general practitioner can play a major role in the medical management of the blind child. I have traced my own progressive involvement in this situation, thereby showing how a general practitioner can be effective in a specialised field for which he has received no special training. It has been possible to do such work, as I have described, without disruption to my own general practice which has carried on in the same way as usual.

In terms of time spent and effort made, my association with the Royal Victorian Institute for the Blind School at Burwood has been of the order of 4% of my total work week. In terms of personal satisfaction and apparent achievement this time and effort has been repaid many times over.

My wish is that any similar body to this Institute which deals with handicapped children on a residential basis, be able to relate to the local general practitioner and use his skills in some of the ways I have listed to you this afternoon.

THE ROLE OF THE RESIDENTIAL SCHOOL

The Tragedy of Modern Day Education for the Blind as Practiced in the Integrated Public Day School Classes.

Merle E. Frampton *

Any attempt to envisage the future of the special residential or special segregated day school for the blind+ must take into consideration the various alternatives to it or concomitants of it suggested to date.

Of these substitutes or reinforcements, only the classes for the visually handicapped in the public schools have had enough of a trial to present any reliable conclusions.

In all great movements for the amelioration of human ills, the appearance from time to time of new ideas, conflicting philosophies, and technical advances is a most welcome and wholesom omen. Such a condition gives evidence of a virile self-generative process which, if allowed to flower into its fullest contribution, guarantees the perpetuity of our social organizations dedicated to the furtherance of our highest moral and social ideals for the welfare of all our citizens.

We are not unmindful of the contributions which other systems of educating the blind child have made, both to the child as an individual and to the professional field as a whole. Take one example, individual tutoring, such as Helen Keller received as a child, was advocated early and is still in use though more in hospitals than in the school or home. Another is the "New England plan" announced on April 18, 1952. A still further and later development, is the itinerant teaching plan as developed in the counties of Nassau and Suffolk, Long Island, N.Y.

That these programs exist side by side with the residential and special segregated day school for the blind is, for the present, evidence enough that there is a demand on the part of some members of our society for such services. The fact that some parents, educators, and individuals feel that the integrated day school++ program better meets the individual needs of some blind children is clearly recognized. There are individual cases and some situations where blind children would make satisfactory adjustments in the integrated day school class.

+ Segregated Day School is used here to distinguish between--a blind class in a Public School, and the itinerant teacher program and special segregated day schools--such as P.S. 47 (for the Deaf) N.Y.C. --The Baer School, Baltimore, Md. --The Special Day Schools in the City of Chicago. Residential and segregated schools are schools not institutions.

++ Integration and segregation as here used must not be confused with the Civil Rights issue. The use of these terms here have no bearing on race, colour or creed.

---

* Dr. Merle E. Frampton, Ph.D., LL.D., Litt.D., is Chief Executive of the New York Institute for the Education of the Blind and Professor of Education, Hunter College in the City of New York, U.S.A.

That the number of classes and enrolments in these integrated day school classes have increased either recently or in waves over the years of their existence does present a matter of serious concern for parents of blind children and those interested in an optimum program for the blind child.

A study of enrolments in Residential schools and Day school classes from 1880 to 1965+ reveals an interesting development. On the basis of numbers alone, it would seem that the integrated day school education has become the majority selection of parents and educators of blind students. Trends and numbers are not adequate standards for measurement of high quality programs. One must study the evidence further to get at the true facts. It was not until 1950 that all registrants in both types of schools were limited to pupils whose vision falls within the accepted definition of blindness. Many partially sighted children reading large ink print are included in these figures and many children enrolled as "partially seeing children" are to be found in the integrated day school classes. This is where they belong if they are properly serviced by the day school.

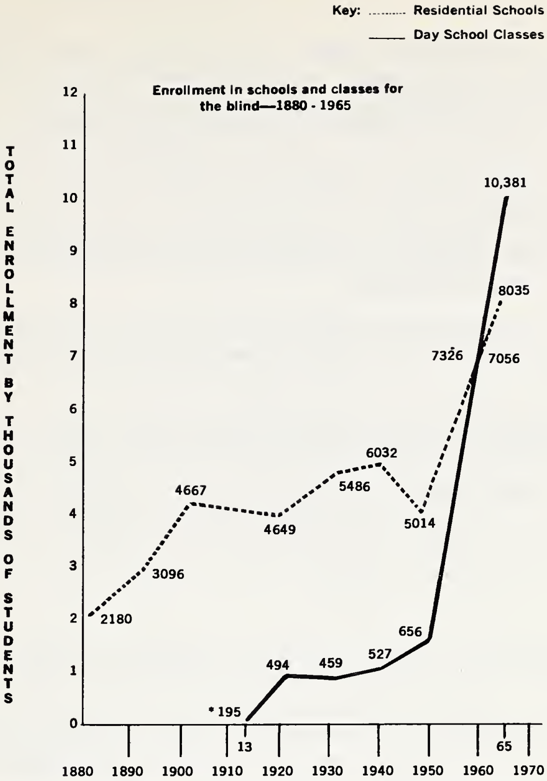
Recent data (1965) from the Federal Government based on American Printing House records show that for 1965 of the 18,416 blind children recorded as enrolled in Residential and Day classes 48% read Braille and 48% Ink Print, whereas 4% read both. When we examine the data further we discover the following: of the 8,035 blind children enrolled in Residential schools, 69% read Braille, 26% Ink Print, 5% both. The day classes reveal almost the opposite. Of the 10,381 children enrolled, only 31% read Braille while 65% read ink print and 4% both. It is evident that the residential and segregated schools are really carrying the load of teaching blind children while the integrated day school classes are more than 50% concerned with dealing with the partially sighted child.

The position taken by some professions that "The old argument that residential or segregated day schools versus the intergrated public school class has been constructively resolved by the fact that more people choose the latter" cannot be accepted because it begs the issue of what is the best, the fullest, the most complete educational program for the blind child in our present generation. Such a position completely ignores the real educational needs of blind children. It substitutes statistics, cliche, wishful thinking, and an inadequate educational philosophy for the very real requirements of a sound educational program as presented by knowledgeable, experienced professionals.

The professional educator working for the blind child cannot rest until he has achieved the best. Either the integrated day school program is better as a whole educational program for the majority of blind children than is the residential or segregated special day school program, or the residential-segregated special school presents the better program. There cannot be two "bests" in a method. There may be good features found in one and not the other, as well as shortcomings. The "Gestalt" of the method and plan must produce an educational product which is superior because of the greater richness and depth of the program. The results must be in the form of blind individuals successfully competing in a seeing community. The product must be a superior one, greatly overshadowing the product of other different or competing systems.

The test again is what is best for the blind child. If some segregation at a period in his educational span gives more time for careful preparation of the child for successful living in a seeing world, with a better opportunity to develop a well rounded individual, then the implied evils of segregation as a criticism of the segregated school bear little weight. These arguments are greatly overshadowed by the immensity of the contribution made by the segregated school to the blind individual. In any event socialization and integration are not substitutes for a sound educational program. Children and youth must still learn to read and write.

+ See Chart Opposite Page.



Since 1959 the percentage enrollment in Residential Schools has shifted from 48.62% to 43.60% of the total blind school population, while the day school enrollments have changed from 51.38% to 56.40% of blind school population.

*Figures for day schools were not available until 1913.

In one large city a recent study revealed tragic conditions for children attending its day classes. The following quotation should give all interested people cause for concern.

Excerpts from an article in the New York Times Thursday, October 21, 1965.

"Most City pupils trail the Nation in tests of 2 R's"

"Donovan cites deficiency in reading and arithmetic in 2nd through 8th grade"

"A majority of the city's elementary school pupils did poorer in reading and arithmetic last year than did their counterparts throughout the country."

"More than half of the city's pupils were behind the normal grade level from the second through the eighth grade. Sizable numbers of children were two, three or more years behind in reading. Only in the ninth and tenth grades did the city children surpass the national achievement rate."

"We shouldn't have a single child on short-time instruction," he declared, "but we have upward of 16,000 this fall. We should have 30,000 children in prekindergarten classes, but we only have 7,000 because we simple did not have enough money to accommodate more."

"The over-all findings were in marked contrast with announcements in previous years that the city system was ahead of or on par with the national achievement rate."

"Non-English-speaking pupils who were in the early stages of learning English and mentally retarded children were not tested."

"Based upon the national standardization," the report noted, "50 per cent of the national group scores above, and 50 per cent scores below the grade norm (for the tests)."

"Dr. King was asked whether a difference of 3.9 per cent between the city rate and national norm was cause for concern.

"I'd certainly be concerned about it if my child was behind the national norm," he replied.

The city "below grade" rate mounts until, in fourth grade, three-fifths of the pupils are behind in reading.

In the ninth and tenth grades, there were proportionately fewer city children behind in reading than in the nation at large.

The Iowa Test of Language Skills showed that 4.4 per cent more of the fourth-graders and 8.6 per cent more of the sixth-graders were below grade than was the case for the national sample.

In arithmetic, the city system had 9.8 per cent more fourth-graders and 10.6 per cent more sixth-graders below grade than the nation as a whole.

In the work-study skills test, which covers map reading, reading graphs and tables, and knowledge and use of reference materials, the city schools did even poorer. Here 13.8 per cent more of the fourth-graders and 16.4 per cent more of the sixth-graders were behind than in the national sample."

No information is available to ascertain whether pupils in the blind classes in the school system and other severely handicapped children were given these tests. It is assumed they were not since the "mentally retarded and non-english speaking pupils were not tested". It would be interesting to have had the results of such tests administered to educable blind children for comparison with other systems of educating blind children.

At the turn of the century, the strong movement of organized social work, as evidenced by the spread of settlements and social agencies, was in the making. Welfare organizations, schools of social work, public and private social-work agencies were organized and began to re-evaluate and examine all social organizations, their philosophies and their administrative procedures. From their studies there were evolved some new, some reworked philosophies, and some procedures different from those under which the organizations of the preceding century had been operating. No social organization living through the 19th century and arriving at the threshold of the 20th century was immune from this new social force. In their anxiety to create a better world with happier and more secure individuals, our social planners sketched large and sometimes Utopian designs, with new and sometimes awesome and meaningless terminology, which even today hardly stands the primary tests of scientific analysis and often defy accurate definition. Much of their planning has been translated into legislative acts on federal, state, and municipal levels, new building designs, new administrative procedures, new personnel and a wholly new field of direct and indirect technical services, some useful and many of no social utility, some great detriments to social progress. From these new forces were thrown the challenges to the old. The residential and segregated schools for the blind were asked to prove their case for continued existence.

The critics of the residential or segregated school stressed institutionalization, segregation, lack of social reality, failure to provide training for life in a seeing world, static curricula, poor equipment, vested interests, and a host of similar charges. Most of these criticisms stand today as the basic pattern followed by this decade's professional critics of the residential or segregated school for the blind.

Out of this welter of so called new ideas was born the public integrated day-school class for the blind. Since the growth of these classes, with their stress on non-segregation, more home contacts, and similar emphasis, several residential schools for the blind have developed co-operative programs with day schools on the junior and senior high-school levels designed, at least in part, to meet these criticisms. Whether any of these modified plans will satisfy the critics of the residential school for the blind or will provide a continuous high-quality program for the education of the blind child can only be determined after sufficient time has elapsed to analyze the products of such systems operating a combined residential and day-school program.

It is a tragedy of the highest order that parents of blind children, some professionals and some blind individuals themselves, do not foresee the future of a blind child if his educational program is not maintained on the highest possible level. It is later than we think. The tragedy ahead for the blind child and adult is very real. He is on the verge of being integrated out of his educational birthright with an incomplete, spoonfed, really "common" educational program wholly inadequate to meet the pressing demands and requirements of our present society. The hour is late and only a sound educational approach to this subject will correct the conditions.

It is only equitable to list the major deficiencies of the integrated day school and itinerant programs apparent from observations of the best of the integrated and itinerant day-school classes. The main criticisms have been aimed at their inability to provide a complete, well rounded program for the blind child, and this inability is evidenced by:

1) A critically inadequate supply of books and technical equipment for blind children at every level.

2) A conspicuous lack of any effective physical and recreational programs for blind children.

3) A complete lack of effective manual training, pre-vocational and vocational programs, courses in the performing Arts, mobility training and placement services or after school follow up.

4) Few, if any, standard musical-training facilities on a standard elementary or High School level.

5) Almost no high quality services available for the multiple-handicapped blind child, the cerebral-palsy blind, the deaf-blind and the mentally-retarded blind. In some day school systems these children are wholly neglected.

6) Far too short a day in the public school to allow for normal classroom progress. Many classes are too large and cover too wide an age and content area. There is almost a total lack of tutorial services within any of the day school groups. +

+ Recent investigations of the itinerant day school program reveal the average itinerant teacher has seven pupils per week and gives each an average of two hours tutorial instruction each week. Even the uninformed parent or layman frequently inquire how quality education for a blind under these conditions can be accomplished. To the informed professional it is evident that the primary objective in this program is integration with the hope of achieving more socialization and not high quality education in basic tool subjects. The author believes socialization to be one of the educational objectives in the education of the blind child but not the prime objective. Most effective socialization can be secured after High School days if the blind child is adequately equipped to meet his sighted peers on their educational level.

7) An inadequate curriculum. There are few consistent, standard programs paralleling the sighted requirements. There is little or no gradation of classes. The present groupings are in wide variance with the best private and public school practices.

8) Provision by the integrated day school of very limited social contacts and social programs in spite of the claims of the integrationist. Provision for the full integration and self-development of the visually handicapped pupil requires keeping him as an individual on an equal footing with his fellow-pupils and not lost in a larger group or pigeon-holed because of a handicap. There is much emphasis today on training in democracy, and children in an integrated day class for the blind do not have a chance to undergo this training. Differences in abilities are recognized in every democratic group, and each takes his place according to his best contribution to the group, as leader or follower, as thinker or doer.

9) Little or no continuity of course-offerings; no certainty of completing a course. There is an apparent failure in many public school day classes to expect blind children to do quite as well as their sighted companions, the result: lower standards and permissive passing for them. Besides being a poor psychological attitude, this means in many cases pupils do not receive the extra drill and special remedial work that will bring a blind child up to regular grade-accomplishment.

> Recently a state educational agency decided to omit Regents Braille examinations for day school classes for the blind. "Since the number of Brailled Regents examination papers has been increasing so rapidly in the past few years, it has been decided, except for the New York Institute for the Education of the Blind in New York City and the New York State School for the Blind at Batavia, that Brailled Regents examinations will no longer be provided.
>
> In order that no blind student need be deprived of the opportunity to qualify for a New York State Regents High School Diploma, the principal may either certify the final school mark for purposes of the State Regents high school diploma or he may provide an amanuensis to read the questions to the student and record his answers omitting any part of the examinations which would require sight. In this case, the remaining questions on the examination would be prorated to arrive at the final score."
>
> Professionals in this field felt this would be a step backward in the maintenance of high educational standards for blind children and requested reconsideration. A revised directive reads "Equality for the Visually Handicapped. At the request of a number of agencies and organizations interested in the welfare of the visually handicapped, the Department has reviewed the educational problems involved in providing examination opportunities for visually handicapped children. After careful study, the Department has come to the conclusion that if full equality of educational opportunity is to be provided to the blind and other visually handicapped children in our schools, they must be given the opportunity to take Regents examinations and the Regents scholarship examination in Braille or in large type, if they wish, according to their individual needs.
>
> Equality of educational opportunity implies not only that the same educational standards will be applied to the visually handicapped child as to the sighted child, but also that the visually handicapped child shall be permitted equal opportunity to demonstrate capacity and achievement. While reader-administered tests will adequately serve the purposes of some children, other visually handicapped children will require the opportunity for other types of examination facilities. The purposes of the State would best be served by allowing full flexibility and freedom of choice, according to the needs and requirements of the individual pupil.

Administration Procedure. Any Regents examination or Regents scholarship examination can, of course, be administered to a visually handicapped student by having the examination questions read to the student by a proctor. As an alternative, the examination may be administered in Braille or in large-type edition, and the pupil may answer the questions by dictation, or in Braille, or in any other appropriate manner. Since these examinations are power tests and not speed tests, even for sighted pupils, there is no objection to extending the time for handicapped students, so that they may be assured ample opportunity to answer all questions. The principal is responsible for the rating of all Regents examinations, including those answered in Braille."

The author is of course sympathetic to the idea of some adjustments in the administration of Regents to blind children but there seems no need to leave such examinations optional, nor their scoring to the principal or his representative. "Equality of educational opportunity" implies some common standard of content material of the test, standard administration and scoring. If blind pupils are to expect High School diplomas they must take and pass equivalent examinations given their sighted friends. To do less is to make an educational farce out of the procedure and cause irreparable damage to the blind student.

During three summer school sessions of 1963, 64 & 65 of 8 weeks' duration, 55 children of high intellectual ability were selected from eleven states in the Union - 75% of these children were from integrated day school classes: They were given an extensive study and testing program. The evidence from their performance indicated great gaps in educational achievements and competence. They lacked training in mobility, social and emotional adjustments in their attitude toward their peers, parents and society in general. Their experience in recreational and outdoor activities was almost non-existent. Their academic standing as reported when they entered the summer school sessions was far below any reasonable educational standards applied. This was particularly true in English Composition and Rhetoric, Braille reading and writing, mathematics and almost any kind of manual skills or the performing Arts.

A further study made of 25 high school graduates holding recorded high school diplomas from integrated day school programs in attendance at a residential school for postgraduate work showed conclusively that these students were -

(a) not prepared to enter a college of any kind.

(b) greatly deficient in the use of the English language.

(c) unable to carry elementary grade school work in Braille, History, English, Modern Languages and Elementary school mathematics.

The fact that they had been certified by the Public High School with a High School diploma and led to believe they were High School graduates ready for college was a tragedy of the highest order to them. In most cases these students had the intellectual ability but had not received even minimal standard instruction. The sample admittedly was small but they came to the residential school for post graduate study from 4 states all ranking within the first 15 states of the Union spending the highest per capita for educational service! These blind children have been literally integrated out of even a minimal educational program.

10) Transportation facilities are inadequate, erratic, costly and destructive of an optimum educational program. How can a child be ready for study in any school after 1 to 2 hours of travel in the early morning? They leave home from 6.45 to 8.00 am., usually arriving late and leave school by three. The climate for good work has been destroyed by physical exhaustion through long

travel. The blind child on school arrival is ready for bed, not a rigorous programme of education.

11) The integrated day school program is still largely experimental after 60 years of trial. Instruction in the itinerant program is limited and often quite inadequate especially for such tool subjects as Braille.

12) No usable records of information about graduates of the integrated plan are available for comparative study with those of other methods of education as to the end-product. A program of education must be tested by its product, the public and parents are forced to rely solely on the opinions of professionals who are committed to the philosophy of integration and not on the concrete results of their efforts in terms of successful blind individuals. Many parents of blind children have never visited a residential or segregated school for the blind. What a risk parents take in accepting such inadequate evidence.

13) Per-capita costs are not lower when properly compared item by item of service performed. The high costs of the integrated day school including transportation have produced minimum educational results.

14) A lack of aggressive school professional leadership in research and adjustment problems for the blind on the part of the leaders of the integrated school movement. Few new or creative publications have come from integrated day-school movement. Few new or creative publications have come from integrated day-school sources. There is plenty of propagandizing, but there are few real professional contributions.

15) In the integrated classes too many partially sighted are being educated with the blind for optimum results to both groups of students.

16) In the integrated class for the blind, there is little objective basis for the treatment of basic problems of students. Guidance is poorly organized with the needs and capacities of the students inadequately understood and dealt with. There is more segregation in real experiences in day-to-day contacts with human beings in the integrated day schools than in any other system, notwithstanding the loud and long arguments to the contrary. There is more sympathy and coddling, more emphasis on their blindness in the integrated class, thus making far more difficult normal adjustments of the blind child.

17) The integrated day school program has been a complete failure in solving the problem of educating the blind in rural areas.

18) Failure of the integrated day school program to provide a sense of real security to the blind child as is done in a well run segregated school program. The integrated class does not remove the "helps" that keep blind children immature. They have no large physical environment where children are free to explore. Inspiration from similar group-activities are far less than in any other system. The integrated day class does not really supplement the training of each blind boy or girl toward the goal of independence. The product of the integrated day school is woefully lacking in all categories of maturity and self-determination.

19) Little or no provision made by the integrated class for an accelerated educational program for talented blind students.

20) The integrated class relies on outside agencies for such vital school services as orientation, medical services, transportation, reader services, guide services, travel education and placement. These services are usually inadequate and unreliable.

An optimum educational program for blind children should have at least--

(a) A graded program of instruction at the elementary and secondary school levels at least equivalent to, better, if possible, than the best private or Public School program. The blind child must be able to compete with the sighted if he is to be independent. Let the leaders of the group who have sold an integrated program to parents of a blind child apply these standards to their programs and in honest candor admit they fall far short of meeting even minimum requirements.

(b) Small graded classes with well prepared teachers in areas of specialty.

(c) A full curriculum for music and vocational subjects including business economics with opportunities for trial periods of employment and mobility training courses.

(d) Adequate library facilities -- Braille, Ink Print, records, tapes, models and other visual and auditory aids where practical.

(e) Complete recreational facilities for standard physical education programs and competitive sports between the sighted and the blind.

(f) Adequate medical services general and special and high quality nutrition.

(g) A wide variety of extra-curricular activities, clubs, scouting, dramatics, field trips, etc.

(h) Continuity of relationship between school, individual, home, social agency and general community to provide experience in leadership.

We would find it a thankless and perhaps useless task to attempt to compare these major services to the blind child item by item and weigh each as against corresponding values to be found in the residential segregated school. Such close measurement is not necessary when we ask the important question -- which system is the best, most complete, most productive of individuals who are prepared to face life realistically and prove "by their fruits" that their educational training has accomplished its goal? Such judgment will of necessity be open to severe criticism from the opponents of the residential or segregated school for the blind. The only reply to be made in those cases is: "Produce evidence to the contrary", evidence which will undergo as rigid tests of social utility as have been administered to our residential and segregated schools for the blind. In this case, when we see, we will believe. Considering the strong propagands programs put forth against the residential school, it has remained what it was intended to be, a school providing ever new and growing opportunities for the blind child to enjoy the fruits of a democracy and share in these returns which have been enjoyed by free, independent, self-sustaining and productive citizens of all walks of life, handicapped or non-handicapped. No temporary, fancy theories of non-segregation, integration, institutionalization, no highly publicized frills from the jargon of educational or social "Don Quixotes" who tyrannize our present generation with baskets of words should be allowed to confuse the public and particularly parents of blind children as to what the "sine qua non" for any blind person should be -- namely, an optimum not a minimum program of education. The residential school has outlived many social, educational and economic changes and survives today vigorous and alert to its task, as is clearly demonstrated. We have confidence that it will remain a bulwark for the future, incuding to the blind child the most productive and practical method of education. The arguments from some quarters that these two programs should be complementary and not competitive may have some valid weight, providing we understand what is meant by complementary, and providing we are agreed on what are the highest basis objectives, optimum standards, and best methods of giving the blind child the fullest possible education. Until then we present the residential and segregated day school for the blind, with all its alleged and actual shortcomings, as the best educational program available to the majority of blind children yet produced in the United States and urge our public and parents of blind children to learn more about this unique, indigenous institution which has contributed so much to our common good.

The blind child, in order to compete successfully in a sighted world, needs a wholly different educational pattern than can be made available to him in an integrated day school program or any substitute presently in vogue or he will fall far short of meeting competition in our fast moving society.

In a segregated school for the blind no one is disqualified because of the fact of blindness, but all learn together the art of democratic living; here there are more opportunities for evaluation (by the group) or group-living versus the individual for himself. In a group of individuals with similar handicaps, there are bound to be many common experiences and interests which form a basis for evaluation of group-living. Blind pupils learn in a group where they feel at home and where there is no self-consciousness. This adds up to a feeling of equality. Competition is on the pupil's own level of ability, there is less of an inferiority complex, and the child has an equal share in all activities.

The child can be trained in fundamental living habits so essential to successful living and so sadly neglected in integrated programs. In the segregated and residential school the entire school staff helps the blind child to overcome unpleasant mannerisms that are often forgiven or neglected at home and in some schools. This type of training so essential for good normal social conduct is not done in the integrated class. The frequently demonstrated fact that the blind child is happy in a residential segregated school has a factual base. There is very little here that he "cannot do." At all times the playground is free from unfamiliar objects and apparatus. He can go anywhere within rather extensive limits, and he can go by himself. He is thoroughly at home here, and he feels secure. He develops a "consciousness of kind" which is essential to a wholesome adjustment of the blind individual "similes simili gaudet". At the same time, he realizes quite early that there are certain things which he cannot do because of blindness. He learns this to be the truth. His frustrations are overcome early and a climate for educational progress is established. This climate is a difficult if not impossible condition to develop in an integrated class, without it there is little or no learning.

Our residential and segregated schools for the blind have without a shadow of a doubt proven their ability to perform services to blind children through many decades fraught with the vicissitudes inherent in the development of a new and virile nation. Social, religious, and political upheavals, economic depressions by the score, and changing educational and social philosophies have by their very nature developed new and sometimes radically different administrative programs for servicing the blind child.

We believe the graduates of the residential school for the blind and special segregated day school programs have been and are superior products. Most agencies and employers tell us they are. There must be something they receive in the residential school which is absent in the integrated day school program.

The residential school for the blind as we know it in the existing plants and programs has stood the tests of time and endurance, and for the most part the essential structure has remained relatively the same as it was at its appearance in the educational field.

As an organization it has changed with the changing demands of the whole social structure, adapted itself to the constructive criticism of the new socio-educational philosophies, where such criticisms were sound and discarded dangerous social theories which destroy individual growth and achievement. Few examples can demonstrate such a balanced social adaptation to changing conditions as the residential-segregated-school has made; it has maintained as its central service theme the best complete service to the greatest number of blind children without losing its vital living sensitivity to changing educational social and economic conditions. Few social investigations can point to any item of social importance in the long history of the segregated-residential school for the blind which has remained static long enough to affect the continuing high-quality service to the blind child through the passing decades. As in all social organizations, necessary changes are sometimes delayed and sometimes developed in a form different from the one originally presented, and sometimes not realized as completely in action as their proponents would have wished. But the end result has been a steady, continuously vital, living social organization, alert and sensitive to the specific needs of its clients in its generation, a social organism destined to continue as long as the fundamental law of survival of the fittest is observed in theory and in practice.

It is our contention that the residential and special segregated day school for the blind, as we know them today, provide the best system so far conceived for the education of the blind child. Because of its vital contributions in the past and its present vital service to this group of children, we feel parents, professionals, and the public should carefully analyze what is now happening to the public school integrated programs for blind children before it is too late.

Our leadership forgets neither its opportunity nor its responsibility to serve the blind child of today and tomorrow. With devoted consecration, application of the wisdom of experience, and productive research marked by patience without parallel, our leaders strive to reach the goal of maximum educational service in their time to the blind child. To do less is to relegate our blind child and blind adult to the "common" pattern of a century ago, a tragic reality if the present trends for the education of the blind child in the integrated day school programs are not radically improved. The public, parents and blind people alike, should awaken to the stark fact that they are being propagandized, coaxed and frightened by pseudo-social and educational leadership and more rapidly than they realize are being clearly integrated out of any program which by the remotest stretch of the imagination can be labelled - education. It is later than we think!

PROFESSIONAL OPPORTUNITIES FOR THE BLIND CHILD

N. R. Westh *

In this paper I propose first to review some of the professions in which blind people have been successful in Australia, with particular reference to Victoria, and then to examine some developments in this field of employment in Britain and the United States, with a view to discovering if any worthwhile advances have been made in widening the choice of such occupations open to the blind child. Although there is much more involved in education than training the child for his future occupation, vocational training is surely an important aspect of education, which assumes greater importance as the child approaches the end of his secondary school course. At this stage increasing attention should be paid to the choice of a future career by the student to ensure that as far as possible he will choose a profession for which he is best suited, and in which there are reasonable prospects of employment. However, compared with the sighted child, the range of possible occupations open to the blind child of superior ability is very restricted, and unless he has an aptitude for and an interest in one of the few professions so far practised by blind people, he may be forced to enter an occupation which is not commensurate with his ability.

During the Second World War considerable progress was made in placing blind workers in open industry. At that time there was an acute shortage of labour and employers were willing to try out blind workers in jobs which has previously been closed to them. As you are no doubt all aware, this most welcome development continued after the war, and today both in Australia and in overseas countries a substantial proportion of blind workers is engaged in a variety of industrial jobs, including light engineering, assembly and inspection work. Unfortunately, there has not been a corresponding advance in the opening up of new avenues of employment for blind people who are capable of entering professional occupations, though recent reports (to be mentioned later in this paper) of investigations into this area of potential employment overseas offer definite prospects of improvement.

In Victoria, blind people with the requisite academic ability and qualities of personality have established themselves successfully in such professions as music, law, teaching, physiotherapy, social work and the church. Some of these professions have been practised by blind people for many years, while others are of much more recent development. A few enterprising blind people have also pioneered their way in other professions, such as journalism and university lecturing.

What success has been achieved in the professions listed above, and what are the prospects for the future? Before beginning a brief survey of the achievements by blind people in these professions, it should be pointed out that there are no official statistics available regarding the numbers engaged in these occupations, and that any figures quoted are derived from the personal knowledge of the writer.

---

* Mr. Neil Westh, B.A., Dip. Ed., is a blind member of the Royal Victorian Institute for the Blind teaching staff.

MUSIC

One of the oldest and most fruitful professions for blind people is music, and over a long period many blind people with varying degrees of musical talent have managed to make a living either as performers or teachers. In Victoria about forty years ago a blind man of exceptional musical ability obtained the Mus.Bach. degree, and thus became the first blind graduate in music in this state. Since then others have followed in his footsteps, until today there are eight blind men and women who have gained this degree at the Melbourne University Conservatorium, and two others who have completed the diploma of music course.

With one or two exceptions, these graduates have found remunerative and satisfying employment in one or more branches of the music profession. The career of the first blind graduate in music illustrates the variety of work which can be undertaken by such a properly qualified person. At present he is director of music at the school conducted by the Royal Victorian Institute for the Blind, where he teaches individual pupils the piano, and conducts classes in singing, recorder playing and musical appreciation. In addition, he has held a position as church organist and choir master with distinction for a number of years. He also does a certain amount of private teaching, and has given courses of lectures in musical appreciation for the Council for Adult Education.

As the number of positions for blind music teachers in schools for the blind is of necessity limited, it is fortunate that some principals of independent schools have been prepared to employ these teachers on their staffs. At the present time there are three blind music teachers engaged in part-time or full-time teaching in sighted schools in Victoria, and one of them is director of music in one of the schools where he teaches. These teachers do class teaching in the usual music subjects, as well as taking individual pupils for piano, violin and theory or perception lessons. School broadcasting also offers some scope for the blind music teacher, as is shown by the fact that one teacher presented most successfully a series of broadcasts in musical appreciation to secondary schools last year. Perhaps more opportunities could be found for qualified blind people to present musical sessions of an educational nature on radio and television.

The success of these teachers in various branches of music teaching, lecturing and performing indicates that there are good prospects of a satisfying career for blind children with the necessary musical talent and the desire to engage in this kind of work.

LAW

This is another profession in which a number of blind men, after successfully completing a university law course, have distinguished themselves either as solicitors or barristers. In fact, there is no reason why a blind lawyer with the necessary legal training and with the services of an efficient secretary, cannot compete on reasonably equal terms with his sighted fellows in this profession.

Soon after the first world war an ex-serviceman became the first blind graduate in law at the Melbourne University. Although he had a hard struggle to establish himself in the profession, he is now a leading solicitor with a flourishing practice in which he employs a large staff. Because of the difficulties experienced by this man in his early years, and because of the limited opportunities for law graduates during the years of the great depression, law was not regarded as a hopeful profession for blind students, who as a result were discouraged from undertaking a legal career.

Since the second world war the situation has changed considerably for the better, and five blind students have graduated in law in Victoria. Every assistance was given to these students in their courses by members of the law faculty, which of course did not involve any special concessions or exemptions, and after graduation they were helped to become articled to a legal firm for the necessary practical experience. With the exception of one of these graduates, who did not wish to pursue further a legal career, each of these men has had no difficulty in securing a position with a firm of solicitors, and one practises successfully as a barrister. The success of these graduates in coping with the demands of their work, which can be paralleled by similar successes in other states, leaves no doubt that this is a profession with excellent opportunities for the blind student with the necessary mental endowment, including a good memory, and a capacity for logical thought and sustained work.

TEACHING

Until comparatively recently, opportunities of employment for blind teachers were confined to schools for the blind, but naturally the number of such positions available will always be small. However, authorities on the education of blind children agree that there should always be at least some blind teachers on the staff of a school for the blind, as their personal experience of the handicap of blindness and first-hand knowledge of its problems will always be valuable.

Let us now consider what opportunities of employment exist for blind teachers in the state or independent schools. Tasmania has the distinction of being the first state in Australia to employ a blind teacher in a sighted school. About thirty years ago the director of education in that state, showing rare understanding and an enlightened confidence in the capacity of a blind teacher to cope with the ordinary classroom situation, took the bold step of appointing a blind teacher to the staff of a metropolitan primary school in Hobart. This experiment has proved to be an outstanding success, as this teacher has not only shown that he is capable of managing his class effectively in teaching the various subjects, but has also been able to put his practical knowledge of electric wiring and plumbing to good use on occasions at the school.

It was not until after the second world war that any further progress was made in placing blind teachers in the ordinary schools. One blind man, who gained his B.A. degree and Diploma of Education at the Melbourne University, and who tried unsuccessfully to obtain employment in local schools, eventually secured a position on the staff of a grammar school in Adelaide through the willingness of the headmaster to give him the chance to show his ability. He has now been a member of the staff of this school for thirteen years, and has achieved remarkable results, to which his headmaster has paid eloquent tribute. At first he taught history, geography and social studies to forms at different levels, and not long after his appointment has promoted to the position of form master. More recently he was appointed senior history master at the school, in which position he is responsible for planning and supervising the various history courses, as well as teaching the senior forms himself. This teacher has also become a member of the history standing committee for the public examinations in South Australia, and was appointed an examiner in history for the intermediate certificate.

Last year in Victoria a landmark was attained in the campaign for the recognition of blind teachers when registration was granted to a blind teacher for the first time by the Council of Public Education. This blind teacher has since obtained a position on the staff of a girls' grammar school in New South Wales, where she is teaching english and french to forms ranging from 2 to 6. She also carries out the usual out-of-school duties required of a resident mistress.

In spite of these few striking successes, there is still much to be done to convince state directors of education and other school authorities that blind teachers with the necessary training, qualifications and personal qualities can teach successfully in sighted schools.

In "The Monitor", June, 1965, which is a monthly magazine issued by the National Federation of the Blind in America, appeared an article entitled "California backs Blind Teachers." This article analysed the results of a survey which has been made of the performance of 49 blind teachers in public schools in that state. All the teachers were rated by their principals as average or well above average. 10 of these teachers were rated as superior, and 21 as excellent. Only one was considered poor in class management. Of the principals consulted, only 3 said that they would not employ blind teachers on their staffs if they had to make this decision again.

At the fifth annual conference of blind teachers in California in 1964, Mr. Robert Colton, Director of Curriculum, Modesto High School, stated the principle of equality of opportunity for blind teachers in a striking way when he said that a teacher should be hired by a school district regardless of his being "A Jew or gentile, negro or white, sighted or blind." "Complete utilisation of all talent is where the strength of our nation lies," he said. All this accumulating evidence of the success of blind teachers should surely help to sweep away the barriers of ignorance and prejudice which still stand in the way of the employment of suitable blind teachers in both the state and independent schools in Australia.

Although teaching must still be regarded as a somewhat uncertain career for a blind person, the prospects are improving here and there. In view of these circumstances, if a blind student with the necessary ability and suitable personality wishes to take up teaching as a career, after being made fully aware of the difficulties of securing employment, he should not be discouraged from making the attempt.

PHYSIOTHERAPY

For more than fifty years this has been regarded as an occupation in Britain peculiarly suitable for blind people with the necessary qualifications, both in the early days of the profession, when it involved mainly massage, and more recently, when various forms of electrical and other specialised treatment were introduced. During this period some hundreds of blind masseurs and physiotherapists have practised either privately or in hospitals, where they have been fully accepted, or in both spheres. In fact, so important was this profession considered for blind people that the Royal National Institute for the Blind (then known as the National Institute for the Blind) decided to establish a special training school for blind masseurs and physiotherapists, which worked in close cooperation with selected hospitals. According to the latest figures of the British Department of Labour, more than 500 blind persons are at present practising as physiotherapists in Britain.

In Australia, although a few blind persons are working successfully as physiotherapists, this profession has not developed to the extent that one would have expected, considering the success achieved in Britain and elsewhere. After the first world war several Victorian blind ex-servicemen were trained as masseurs at the R.N.I.B. school, and on their return to Australia obtained employment at Repatriation hospitals and clinics, and also engaged in private practice. From time to time since then, a few blind individuals have gone overseas to receive training at the special school in London, because, with the exception of New South Wales, they were not accepted for training by the various state boards responsible for training physiotherapists.

For some years after the second world war blind students were admitted to the physiotherapy training course in New South Wales, some of whom completed successfully and established themselves in the profession. However, for various reasons blind students are no longer accepted for training in that state, but negotiations are proceeding between the N.S.W. Department of Health and interested bodies for the re-opening of the course to blind students, possibly on a national basis. It is to be hoped that these discussions will result in the establishment of a national training centre for blind students, so that none of our young blind people with the necessary ability will be prevented from undertaking a career which all available evidence proves they can follow with complete success.

In Victoria, one of the obstacles in the past to the admission of blind students to the physiotherapy training course has been the requirement that prospective students must have passed science subjects, such as physics and chemistry, at the matriculation level. These subjects do present certain difficulties for blind students, but with the development of various aids and techniques to enable them to undertake the experimental work, it is now quite practicable for blind students to complete courses in these subjects successfully. As an indication of what can be done, a blind student, after matriculating in physics (in which subject he obtained a first class honour), chemistry and a branch of mathematics, commenced a science course this year at Monash University, thus becoming the first blind student in Australia to undertake a science course at a university.

SOCIAL WORK

This is a comparatively new profession whose members are called upon to assist people to cope with a variety of problems arising from the complexities of modern living. It has a strong appeal to many young students who have a desire to serve their fellow men in some branch of social welfare, for which professional training is becoming increasingly an essential requirement.

The first blind student to obtain the Diploma of Social Studies in Victoria did his course about thirty years ago, and became a most successful welfare officer in our of our agencies for the blind. Some years later two other blind students completed this course successfully, and both managed to secure positions with organizations not engaged in blind welfare.

With the growth of social services provided either by the state or by voluntary organisations, there has been an increasing demand for trained social workers. Although there are certain difficulties which blind social workers have to overcome, such as the recording of information on prescribed forms, there are ways and means of coping effectively with these problems. Because of the essentially personal nature of this work, there should be increasing opportunities in this field for blind children with the necessary ability and personality not only to achieve a satisfying career for themselves, but also to render valuable service to the community.

THE CHURCH

In Britain and the United States a number of blind men have been accepted for training as clergymen by several denominations, and on completing their courses have obtained suitable appointments in their respective churches. These men are carrying out most successfully the various duties required of them, such as the conduct of divine worship, pastoral care and the oversight of the usual organizations within a church.

To my knowledge there are only four blind ministers of religion in Australia. One of these is a most successful Presbyterian minister in New South Wales, who had a long and hard struggle to convince the authorities of his church that he could do the required training course in theology. After his ordination this man had to wait some time before he received a call to a charge, but when he was eventually appointed to a church, he had the satisfaction of learning subsequently that some members who had originally opposed his appointment, readily admitted that he was performing a most effective ministry. Although the profession of the sacred ministry will probably only appeal to an occasional blind student, every effort should be made to ensure that such a student be given the opportunity to train for this vocation, as both the church and the community would benefit greatly from the services of a competent and dedicated blind minister.

OTHER PROFESSIONS

Besides the professions which have so far been reviewed, and in which varying numbers of blind people have achieved success, there are examples of other blind individuals of initiative and resource establishing themselves in professions which might not have been thought to offer much prospect of success. One interesting example of this is a blind man in Victoria who has made a successful career for himself in journalism. When he first joined the staff of one of our newspapers, he had to be content for a time with doing copy work which was phoned to him by reporters. Later he broadened the scope of his work by undertaking various interviewing assignments over the phone. When the opportunity offered, he recorded interviews for radio, which he found most congenial, and in which he was very successful.

Another striking achievement is that of a blind man of outstanding academic ability who occupies a position as lecturer in economics at the University of Western Australia. This is a sphere of work which of necessity will be confined to blind people of superior ability, but the fact that one blind man is doing this kind of work successfully shows that university lecturing is a possible career for blind honours graduates.

This brief survey of most of the professions in which blind people are engaged in Australia, although it presents a fine record of individual achievements, also serves to emphasise how limited is the range of such occupations open to the blind child of ability, and it underlines the necessity of every effort being made to open up new avenues of employment for this type of person.

OVERSEAS DEVELOPMENTS

This problem is being systematically investigated in other parts of the world, and I would like to refer to two examples of the kind of work which is being done. At the beginning of 1964 the Royal National Institute for the Blind undertook a survey of blind professional and administrative workers in Britain to ascertain what kinds of jobs such people were doing, and to investigate what might be done to develop new ones. Several progress reports of this investigation have been published in "The New Beacon", the well known journal of blind welfare in England, and I would like to quote at some length from the report which appeared in the issue of January, 1965.

"As a result of the survey it was decided to study certain careers in depth: to start with, three occupations were chosen, namely, osteopathy, speech therapy and computer programming. A brief outline of the findings follows.

1. Osteopathy. "Between the wars a number of people entered this profession, many after qualification as physiotherapists. Some years ago the examination syllabus was altered and the main examining body, the British School of Osteopathy, stated that blind people could not be accepted for training. ... In England and Wales there are at least five blind osteopaths; two were fully trained after becoming totally blind, and three have partial sight. All are now qualified and registered as osteopaths, with successful practices. A study of their careers suggested that osteopathy was, in fact, suitable for some blind people. Accordingly, an approach was made to the British school of Osteopathy, which has now agreed to modify its original view that osteopathy is not a suitable profession for blind people: blind candidates can now be considered on their individual merits.

2. Speech therapy. "A number of unsuccessful attempts have been made in the past to establish this as an occupation for blind people, mainly because of the high aural content of the work involved. ... The investigation into this subject is now complete, and application is being made to the College of Speech Therapists, the central examining body, asking them to accept suitable blind candidates for examination. Although a totally blind therapist could perform most of the diagnosis and treatment involved, there are some specific situations which would require residual vision: in certain clinics, for example, where group therapy is employed, and where some vision is needed to ensure the safety of young children who are often maladjusted and emotionally disturbed. But it is hoped that the college may be prepared to consider blind people on their merits, even though a totally blind speech therapist might have to work in a restricted field of the profession or, for example, in a clinic where sighted colleagues were available.

3. Computer Programming. "This occupation has been the subject of study in a number of countries, especially America and Israel. There are two main difficulties for the blind computer programmer. One is in correcting the programme before it is released for use. This problem can be overcome by using an I. B. M. 1403 printer, for which a programme can be devised which uses the printer's dash or full-stop sign to produce mirror-image braille. The second difficulty is that of obtaining the information upon which a programme may be designed. This is easier than the first problem to tackle, for such communication difficulties have to a large extent been overcome in other spheres, but due consideration will have to be given to it in seeking placement."

Computer programming has developed rapidly in America as an occupation for blind people. In an article entitled "Computer Work for the Blind", which appeared in the November-December, 1964, issue of the "Journal of Rehabilitation", Dr. Theodor D. Sterling, PH. D. , who is director of the Medical Computing Centre of the College of Medicine, University of Cincinnati, writes enthusiastically about the prospects for suitably trained blind people in this new field.

"The revolution in technology and knowledge now developing around computers touches every field of business, technical and scientific activity. For the blind this revolution holds special significance because it enables them to enter new professions in which they may compete on an even footing, if not with some advantage, with the sighted.

"The most immediate profession thus open to the blind and the one in which a shortage of trained personnel offers the greatest opportunities is that of computer programming. Jobs in this new field cover a variety of skills and levels of sophistication and range from routine work on payroll and accounting procedures to the highly scientific and demanding disciplines of so-called "Creative" programming."

After examining the problems confronting blind people in the preparation of computer programmes and the correction of errors, Dr. Sterling states that the "Placing of adequately trained blind persons does not present any difficulty", and concludes "In general, all conditions now exist for ensuring adequate training and satisfactory placing of blind trainees in computer-related professions."

So far only one blind person has been trained and placed in this type of work in Australia. After completing a course in economics at the Sydney University, this man is now working as a computer programmer for a leading insurance company, and is achieving very good results in his work.

In the course of a broadcast talk in the ABC's science programme "Insight", in which he reviewed the findings of a recent conference on computer programming held in Canberra, the speaker mentioned that there are at present 3,000 computer programmers in Australia. He estimated that by 1970 from 8,000 to 11,000 such programmers would be required, but pointed out that at the present rate of training only 20 per cent of this demand would be satisfied.

In view of the great advance which has been made in this field in other countries, and the obvious shortage of such specialists in Australia, it would seem that the time is ripe here for an intensive investigation of the training and placement of blind computer programmers.

A few years ago a most interesting book was published in the United States entitled "Placing the blind and visually Handicapped in Professional Occupations", in which the authors, Mary K. Bowman and Norman M. Yoder, recorded the results of a detailed survey which they carried out under the auspices of the Vocational Rehabilitation Administration. Their study covered 800 blind people who had achieved the same financial success and recognition in their professions as sighted people over the same period. Nearly 500 blind people were interviewed personally, and the survey covered 14 distinct professional occupations, which, besides the traditional professions, included such groups as mathematicians, psychologists, speech therapists and journalists. As a result of their investigations, these writers state: "It would seem that we are on the threshold of greater facilities (for blind people in professional occupations), for the fields of scientific mathematics, electronic data processing, physics, chemistry, journalism, the verbal arts and others are just beginning to open up."

CONCLUSION

In order to improve and extend professional opportunities for our blind children, the following two suggestions are offered for consideration :

1. The undertaking of intensive research with the object of opening up new avenues of employment for the professional blind, with special attention to new occupations in which blind people have proved themselves to be successful in other countries.

2. A comprehensive educational campaign to enlighten prospective employers and the general public regarding the achievements and potentialities of blind people. This campaign would also seek to remove the barriers which at present prevent blind people with the necessary ability and personal qualities from being accepted for training and employment in certain professions in which there is abundant evidence to show they can succeed with satisfaction to themselves and great benefit to the community.

EMPLOYMENT OPPORTUNITIES - THE BREAK THROUGH.

E. J. Hanlon *

Centuries ago John Milton wrote "They also serve who only stand and wait". Then, and for many years, there was little for a blind man but to wait and be waited upon by patient and generous relations and friends, or to suffer and perhaps die in poverty and frustration. Not all did stand and wait. Indeed, John Milton himself did not and now in this day and age the blind man must not stand and wait. It has been shown that handicapped people can give much through their work and in so doing can themselves achieve a normal, happy and productive life. More than that, it is economically necessary that they have paid employment and a major part of our work is to see that this is made possible and practicable.

It was just one year after the establishment of this Institute in 1866 that a part-time instructor in basketry was appointed. In 1868 a permanent resident basket instructor was appointed. The first workshops were erected 97 years ago and in that year 8 blind people were making baskets, 7 were making mats, 10 were making netting and 19, including 11 girls, were knitting.

Within the next three years brush making was introduced, and by 1875 - 20 people were working in basketry, 17 were making brushes and 17 were making mats. In that year 5 basket makers found employment away from the Institute.

From the introduction of these activities almost a century ago the Institute's ability to provide employment for blind people was centred on the traditional trades of basket making, millet broom making, brush making and mat making. Today, however, all of these activities, except mat making and industrial brush manufacture and repair, have been discontinued and the work which occupies almost 100 employees in our factory consists of packing and assembly, with mat making and industrial broom making for the remainder.

Through the century other activities have been introduced and withdrawn. These included mattesss making in 1874, timber goods in 1950 and food and sugar packing in 1959. Some of these activities were discontinued on the ground that they were grossly uneconomical and others because they proved to be unsuitable for the effective employment of visually handicapped operatives.

My own experience in this Institute has been a very interesting one, and in some respects it has been unique. Following an accident in 1926 which cost the loss of one eye and serious visual impairment in the other eye, it was necessary for me to attend the R.V.I.B. school.

---

* Mr. E. J. Hanlon is a former pupil of the R.V.I.B. School, a successful businessman and member of the Board of Management of the Royal Victorian Institute for the Blind.

The time lapse between my injury and commencing as a day pupil at the R.V.I.B. was 4 years, so I was only two years at the School before reaching the then leaving age of 16 years. Naturally, with no alternatives available I entered the factory to learn a trade and become an apprentice basketmaker. At this period, 1933, all the traditional trades had competent Tradesmen/Instructors as Foremen. Piece work rates based on the appropriate Industrial Awards applied to most adult workers. A full day's work was the rule and a 48 hour working week spread over 5½ days was standard.

During the following years I became Assistant Foreman and Instructor in Basketmaking, and I learnt many lessons from my fellow workers. Courage, patience, humor and a willingness always to help a work mate were demonstrated daily.

Keenly interested in sport, I played in the weekly cricket competition and captained my eleven. I also was an active member of the Trojan Club which was based on the excellent gymnasium that over the years had been subsidised by the Board of Management of the Institute.

I had the good fortune to serve for a year as President of the Blind Workers' Social Club. This widened my personal horizon and I learnt more of the needs of elderly blind people, in addition to the social requirements of my contemporaries.

A term as President of the Blind Workers' Union and delegate to the Melbourne Trades Hall Council, brought new stimulus to social consciousness and an awareness of organised labour's role in industry.

I know from personal experience the problems of helping blind people to secure employment which is best suited to their aptitudes and abilities.

During 1939 some initial attempts were made to find employment for the visually handicapped. One or two placements were achieved but no sustained programme was followed. In 1941 a group of workers spent considerable time duscussing outside employment and mass meetings were permitted by the Management. Progress was slow and naturally Industry, which had for years been accustomed to a pool of able-bodied workers being readily available, was not anxious to pioneer with a new concept of employing blind workers.

But, following the Japanese attack on Pearl Harbour, it was plain that raw materials for the traditional trades would be in short supply and a major effort in job placement would be needed if our blind people were to continue in employment.

The urgency of the war situtation, change of Government and introduction of manpower controls brought a new approach. The Institute Management was flexible and George Knott, a blinded master builder, and I were given the task of attaining employment for as many as possible of our workers!

Our approach covered the Federal Department of Labour and National Service which under the direction of the Minister, Mr. E. J. Ward, gave us great assistance. The Department of Aircraft, under Senator Don Cameron, was most helpful and opened many doors for us to tell our story.

A major success was achieved when a number of workers were accepted for the Shell Annexe at the Newport Workshops as process machinists.

With no guide lines, we picked industries where we thought opportunities might exist.

One such, Kodak (A/asia) Pty. Ltd., proved a winner. In the dark room natural jobs were found for six totally blind workers. This happy result followed a successful work trial organised by the Company's then Chief Engineer, Mr. M. F. Bradly, who is now my valued colleague on the Industrial Committee of the Institute's Board of Management. It is interesting to note that four of this original group are still on Kadak's staff.

Steady results in other industries followed and a variety of jobs, such as Storeman, Process Workers, Press Operators, Packers, Assemblers and Confectionery Workers were successfully located and filled in industry. Ultimately some 70 workers found full employment. I believe this Institute pioneered the way and, by proper use of the opportunity provided by the manpower problems of this period, enable the visually handicapped workers to demonstrate their ability to work effectively and economically in normal everyday occupations.

The year 1965, in my opinion, was the break-through year for employment of visually handicapped people in Victoria. This was the year in which, in Melbourne, 30 blind people were helped in various ways to secure and retain employment in commerce and industry - despite a situation of full employment in the economy.

You will be interested, I think, to know the range of employment which these 30 blind people found.

There were -	Telephonist	(M)	1
		(F)	1
	Storeman	(M)	4
	Optical Work	(M)	1
	Assembler	(F)	3
		(M)	2
	Messenger	(M)	2
	Tradesman's Assistant	(M)	1
	Telephone Sales	(M)	1
	Salesman	(M)	1
	Furniture Assembly Builder	(M)	1
	Cook	(F)	1
	Press Operator	(M)	1
	Machine Operator	(M)	3
	Cleaner	(M)	1
	Dark Room Worker	(M)	1
	Process Worker	(M)	2
	Receptionist Telephonist	(F)	1
	Truck Jockey	(M)	1
	Audio-Typist	(F)	1
			30

In order to achieve such a pleasing result the Institute's Public Relations Department helped by using all publicity media to inform employers that a suitably trained visually handicapped person is a good investment and that there is nothing charitable in employing a well trained blind person.

The Institute's Employment Officer, Mr. E. G. Williams, also made a direct and positive contribution to this success story. He was appointed in February 1965, and he quickly appreciated that team work is essential to secure the best opportunities for visually handicapped people. He has therefore worked in active co-operation with the Department of Labour and National Service and the appropriate departments of this Institute.

It was about this time that the Board of Management adopted a new policy designed to help visually handicapped people to obtain employment best suited to their aptitudes and abilities. The position now is that every applicant for employment is first subjected to medical examination by the Institute's Honorary Oculist, Mr. James Foster, and the Institute's Consultant Physician, Sir Clive Fitts. The consultants submit their reports to the Institute's Honorary Medical Officer, Dr. Charles Bennett, who is then in a position to advise the Board of Management. Applicants for employment are then referred to the Rehabilitation Department of the Institute and, as a consequence of appraisal there, decisions can be made as to their future. The actual time spent in the Rehabilitation Department can vary according to circumstances from a brief interview to specialized training for several months.

During the rehabilitation period the Employment Officer, the Welfare Department of the Institute, the Department of Labour and National Service and others make co-ordinated recommendations affecting the applicant's future. As a consequence, the blind person's decision to return home or to accept employment in the Institute's factory or to accept employment in commerce or industry away from the Institute is based on carefully collected facts.

Whatever the decision, there is a follow-up service provided by the Institute so that the blind people concerned can be helped to overcome problems which arise from time to time.

Stated in the shortest terms the Institute's policy is to assist every blind person to obtain the greatest possible satisfaction from life. For this to be possible there must be financial security, job satisfaction, and all the other factors involved in the integrity of the personality. A person, being blind, is likely to need help of a particular kind to achieve his best employment potential. The Institute is today better equipped than ever before to give him this kind of help.

And now I want to introduce to you some of my colleagues from earlier days, who, each in his own way, has made a good job of his life - in spite of the handicap of blindness.

There are of course, others I could have invited to be here with me today, but I have asked these few friends because they represent a cross section of the extraordinary independence and ability to be found amongst blind people.

First, may I introduce --

> (Mr Hanlon at this stage introduced four blind men typical of those who had succeeded in establishing themselves in worthwhile employment in the community).

Conclusion:

I have been glad to talk with you today as we celebrate together the Centenary of the R.V.I.B. For a third of our first century I have known personally, and at close quarters, the kind of multiple service available from the Institute. Although it is by no means the only aim of the Institute, one of the most important objectives is to help to equip blind people for effective employment. This theme runs strongly through our school, our rehabilitation services, our welfare department and our factory.

It is a commonplace that there is a joy in labour, although there is some evidence in the community at large that people are less inclined to work today than in former times. It is however, a fundamental truth that a blind person must be gainfully employed. For these reasons, therefore, I am delighted to be able to sketch in something of the historic breakthrough in employment opportunities which has occurred in the recent history of this Institute.

THE FUTURE -
IN THE FIELD OF EDUCATION OF BLIND CHILDREN

Merle E. Frampton *

I look hopefully to the future for the successful adjustment of an increasing number of blind children and adults in the next century. The fine services provided by the Royal Victorian Institute for the Blind to Victoria's blind children and adults is one reason why present and future generations can look hopefully to the future for social acceptance, economic security and real peace and happiness. The Board of Management, the proficient staff, members of the Institute's Auxiliaries and the ever generous Victorian public are the sure guardians of your interest.

The future of a blind child is secure if we really understand his basic needs.

The degree to which a blind child develops a normalcy of living is directly dependent upon his success in substituting stimuli received through his unimpaired senses for that which is blocked off from him because of his sightlessness. The public generally believes that because of the handicap of one sense, the other senses naturally are sharpened to compensate; but this is not true, at least in our present civilization. It is possible that a blind child in a primitive order thrown upon his own resources would develop sensory substitution if he were protected from destruction by natural enemies; but in our protective system today, our efforts to safeguard a visually handicapped child can be that child's greatest deterrent. To facilitate sensory substitution through widening sensory experience and assisting in the interpretation of that experience is the opportunity of teachers of the blind.

So long as a blind baby's sphere of activity is limited to the arcs described by the random movements of his arms and legs, he is in no way handicapped because he does not see. He recognizes the presence of his immediate associates by muscular, auditory and olfactory sensations; he adequately expresses himself vocally so as to get his needs supplied; he explores normally with his tongue and lips; and is totally unaware of any limitations. How long this unawareness continues depends entirely upon the person in whose hands rests the responsibility of training the child. To teach and expect a blind child to do the same things that a non-handicapped child does, with certain protections of which he is not aware, is only humane. It is his right to be encouraged to use to his advantage all capacities he has without being retarded by even being made aware of his limitations. It was a very fortunate and normal blind man who, up to the age of six, did not know that he differed at all in physical perfection from his non-handicapped brothers and sisters. He learned to walk and run and play with confidence, absorbing the world about him through the sensory stimuli which were available to him and interpreting it as his brothers and sisters did, unaware that there was a sensory realm which he could not enter.

---

* Dr. Merle E. Frampton, Ph.D., LL.D., Litt.D., is Chief Executive of the New York Institute for the Education of the Blind and Professor of Education, Hunter College in the City of New York, U.S.A.

In contrast to this ideal situation, the blind baby is sometimes kept a baby until four or five years of age. The thwarting which the parents experience at the advent of a blind baby is transferred to the child. Some homes go so far as to keep a blind child in bed or tied in a chair until he is four or five years of age. Needless to say, such children are mentally and physically in every respect infants. Fear, physical lethargy, lack of sensory experience, dulling of sensory end-organs, and mental inactivity make a vicious circle resulting in retarded development. Physical activity inspired by confidence, giving wide sensory experiences, develops keenness in sensory reception, stimulates mental activity which gives rise to curiosity, imagination, imitation, and continued physical activity produces an entirely different cycle which enables a blind child to know and interpret the world around him. The blind child has to substitute the sensory reception he possesses for the one he is denied, he must taste and feel and smell and hear; and the parent or teacher must first of all reconcile himself or herself to that need, and recognize every opportunity for the child to experience sensory contact with his environment. Certain techniques can later be taught, but during the early years interest in activity is paramount.

When once a child's innate urge to physical activity has been repressed and a physical apathy sets in; his sense of touch is soon lost because of the poor innervation of his atrophied muscles, and all his movements become awkward. With the loss of clear cut gestures, muscular memory becomes vague and the natural spurs to synthesis of tactile sensations are gone.

Acuity of hearing is not necessarily involved in the spread of muscular atrophy, but it is observed that in general the ability to place sounds is affected and the use of sounds to guide actions is impaired.

The breakdown of physical activity and the loss of the sense of touch cause a blind person's ideas of his surroundings to become vague and his mental grasp of the world becomes poorer and poorer. Without stimulation, the mind stagnates and a listlessness results. With a loss of interest, the mind becomes progressively ingrowing, and the backward blind person is lost in an unreal world or aimless, endless dreams.

Children enter school at all stages of this physical condition and resulting mental breakdown, and it is often an arduous task to delve into the history of each child's apathy to arouse interest and guide that interest into practical channels. It takes much less time to harden muscles and limber joints than to awaken interest, but until the child has that interest, all his activities are mechanical.

Avoiding the blunting of the other senses by blindness or the rousing and developing of their acuity through activity brings us then to the starting point in what must be a systematic effort to develop the senses in order to assure sense substitution.

The desired goal in this sense substitution is what the blind call normalcy or ease of manner which means adaptation to the outer world by means of contact established between the brain and the environment. This is the ability which enables the blind person to act as sighted persons act, to put others at ease in his presence, and even to pass unnoticed because of his handicap. This ability looms large in their ambitions and many blind people would as soon be called stupid as be considered ill at ease.

The lack of ease of a blind person may be due to either a psychological or a physical cause or both. He may have an inability to conceive objects as spatial. or he may have an inadequate motor system. The two defects are generally associated, being reciprocally the cause and effect of each other. Moving about is necessary for a blind person to make observations, and the accuracy of his observations encourages his movements. A good motor system is essential for ease of manner in the sighted even with the use of eye sight. In addition to being muscularly alert, the blind person must be particularly aware of and able to recall his movements, their direction and extent and through exercise perfect them. He cannot have either too slow or too soft a touch. To acquire a clear idea of an object, he must co-ordinate his movements with precision and adapt each movement to conditions discovered in the examination of objects so that impressions gained give definite and permanent mental pictures which have meaning in determining conduct. Auditory sensations are no guide to actions unless by means of the co-operation of the motor system they have been localized in point of space.

The essentials then in training in sense substitution are to refine the senses by exercise, project these senses externally so that they are quick to glean all the information which they are capable of deriving, and by attentive application of earlier experiences interpret the mental picture as it is recorded. Senses well-trained in the scrutiny of space will make it possible for a blind person to have mental pictures of many objects and so have a well-equipped mind. The conceptions of many familiar objects, of animals, of plants, which a seeing person acquires by visual perception are often attained by a blind person only after many years of effort. It is obvious if a blind person's conceptions of the things which form the basis of his action and reasoning are false or uncertain, his actions will be hesitating and his reasoning untrue. The education of a blind person must include not only the provision of correct mental equipment but also the examination and rectification of existing impressions. For freedom of activity, a blind person must have activity patterns memorized by his hands and feet and ears as well as mental pictures of objects. All this equipment developed and co-ordinated enables the blind person to approach the goal of normalcy of manner and all the special skills of trades or professions are incidental to this achievement.

The way the blind child should go is up the straight wide ancient path of knowledge. Home, school, work and social and economic responsibility. He will have learned how to meet triumphs and disasters and how to treat these impostors just the same and where at the end of the road he can say "I am a man, fit for a man's work".

Parent, friends and the general public seeing the children at that point can breathe a sigh of relief for they will know, with Solomon, that a child trained in the way he should go when he is old will not depart therefrom.

I envisage a great future for Australia's blind children and urge you hurry on to enjoy the fruits of a well planned and administered programme in your 2nd century.